

Fig. 1

From
Jim Elder
829 Loop Street, Apt 300
Allentown, New York 14707

Nov 10, 1999

To
Dr. Bob Grant
602 Queensberry Parkway
Omar, West Virginia 25638

We were referred to you by Xena Cohen at the University Medical Center. This is regarding my friend, Kate Zack.

It all started around six months ago while attending the "Rubey" Jazz Concert. Organizing such an event is no picnic, and as President of the Alumni Association, a co-sponsor of the event, Kate was overworked. But she enjoyed her job, and did what was required of her with great zeal and enthusiasm.

However, the extra hours affected her health; halfway through the show she passed out. We rushed her to the hospital, and several questions, x-rays and blood tests later, were told it was just exhaustion.

Kate's been in very bad health since. Could you kindly take a look at the results and give us your opinion?

Thank you!
Jim

Fig. 2A

From
Jim Elder
829 Loop Street, Apt 300
Allentown, New York 14707

Nov 10, 1999

To
Dr. Bob Grant
602 Queensberry Parkway
Omar, West Virginia 25638

We were referred to you by Xena Cohen at the University Medical Center. This is regarding my friend, Kate Zack.

It all started around six months ago while attending the "Rubey" Jazz Concert. Organizing such an event is no picnic, and as President of the Alumni Association, a co-sponsor of the event, Kate was overworked. But she enjoyed her job, and did what was required of her with great zeal and enthusiasm.

However, the extra hours affected her health; halfway through the show she passed out. We rushed her to the hospital, and several questions, x-rays and blood tests later, were told it was just exhaustion.

Kate's been in very bad health since. Could you kindly take a look at the results and give us your opinion?

Thank you!
Jim

Fig. 2B

Dr. Bob Grant
602 Queensberry Parkway
Omara, West Virginia 25638

Fig. 3A

Dr. Bob Grant
602 Queensberry Parkway
Omara, West Virginia 25638

Fig. 3B

602 Queensberry Parkway

Fig. 3C

Omara, West Virginia

Fig. 3D

From
 The Elder
 299 Long Street, Apt 300
 Flushing, New York 11355
 Nov 12, 1999
 To
 Dr. Kit Chen
 605 Greenberg Building
 Davis, West Virginia 26048
 We are referred in you by Xian Chen of the University Medical
 Center. You are regarding my friend, Yola Zerk.
 It's all started about six months ago while attending the
 "Early" Tumor Center. Engaging with our friends in the
 end of President of the Alumni Association, a co-sponsor of the
 end. We was contacted. And she engaged me job, and did
 what was required of her with great zeal and enthusiasm.
 However, the whole house affected her health, feeling through
 the show she passed out. We rushed her to the hospital, and
 several questions, X-ray and blood test later, we told it was
 just exhaustion.
 Yola has a very bad health issue. Could you kindly take a
 look at the results and give us your opinion?
 Thank you!
 Tim

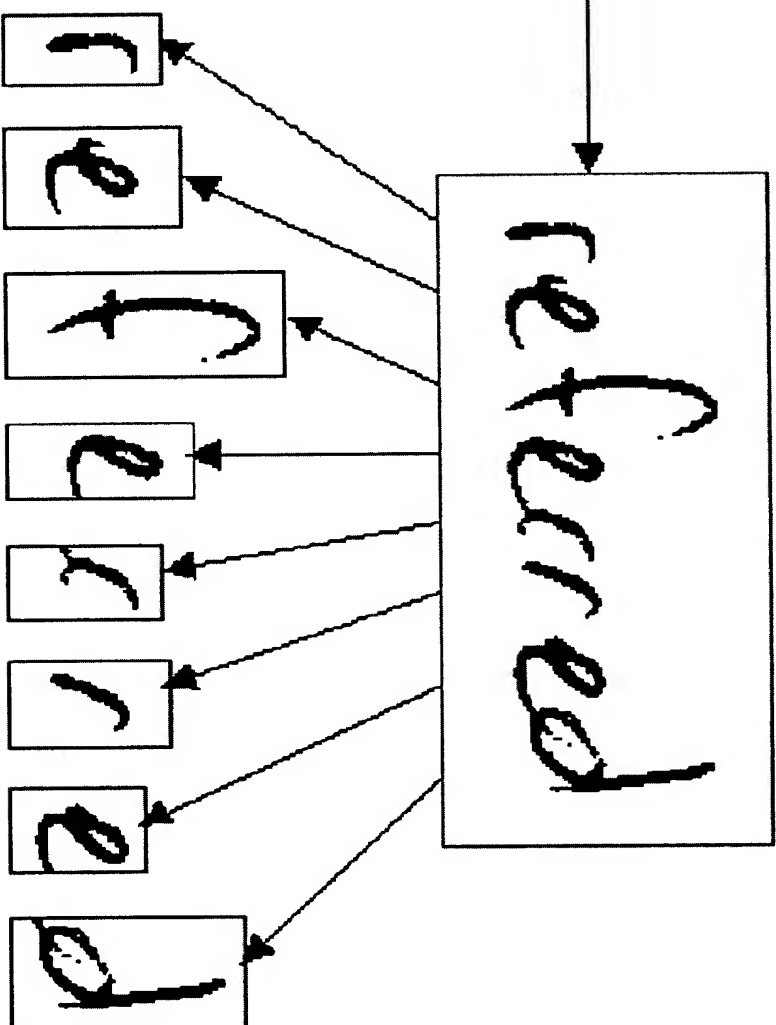


Fig. 4

Measures of Pen Pressure	<ol style="list-style-type: none"> 1. Entropy of grey values 2. Grey-level threshold 3. Number of black pixels
Measures of Writing Movement	<ol style="list-style-type: none"> 4. Number of interior contours 5. Number of exterior curves
Measures of Stroke Formation	<ol style="list-style-type: none"> 6. Number of vertical slope components 7. Number of horizontal slope components 8. Number of negative slope components 9. Number of positive slope components
Slant	10. Slant
Word Proportion	11. Height

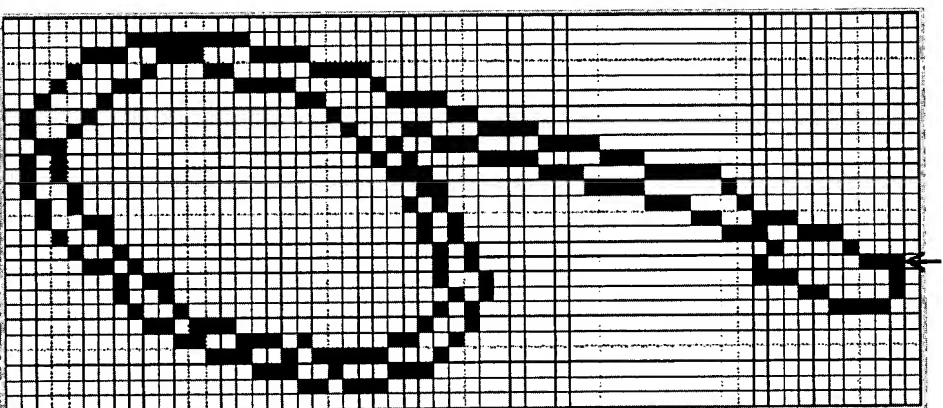
Fig. 5

602 Queensberry Parkway

602 Queensberry Parkway

Fig. 6

First Cluticcode



Exterior contour of 6:

066776676677766667667666766676766677
66676667666666656655543544343332343
323232232232132212211101070707077712
3223222322232223223542232222210

Interior contour of 6:

555656666757667667706777067070011112
11223222232333323534344

Fig. 7

all started around 2000-2001

Fig. 8A

all started around 2000-2001

Fig. 8B

To
Dr. Bob Grant
602 Quakersberry Parkway
Over, West Virginia 25638

Fig. 9A

602
Dr. Bob Grant
602 Quakersberry Parkway
Over, West Virginia 25638

Fig. 9B

Fig. 10B

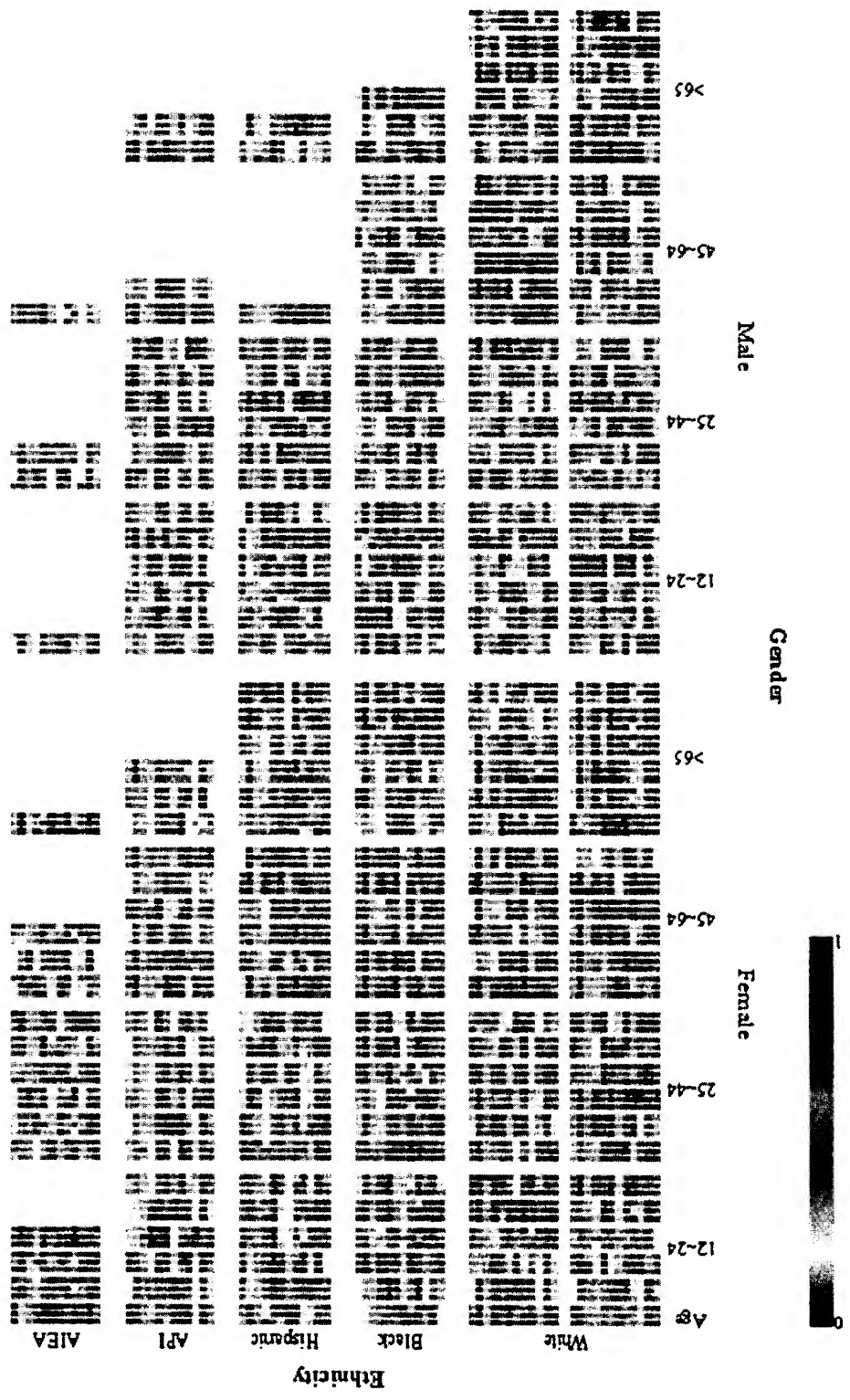


Fig. 10A

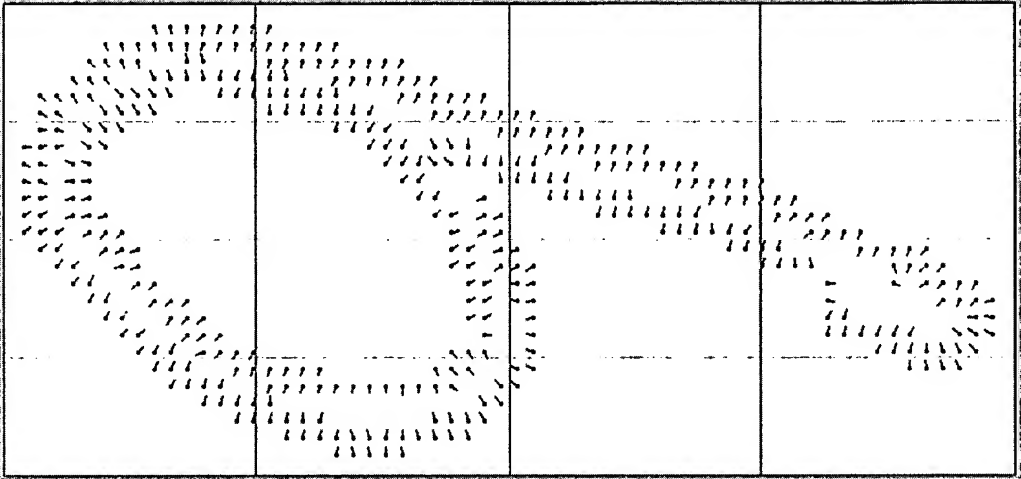


Fig. 11A

Gradient (192bits)	000000000000110000000001100001100000000010000011000000000110 01110000011000011000001111000010110000110000000000110000000000 000010000010000100011000011001110001110010000111000010000110000
Structural (192bits)	00000000000000000010000000000011000000010001010000000000000000 00111100000100101000001000000000000111000000000100000000100
Coarsenly (128bits)	0000000011011001100110111100000110000000000110000000000110000 01100100111111110000000111111001100100100100100000000111100 0011011100

Fig. 11B

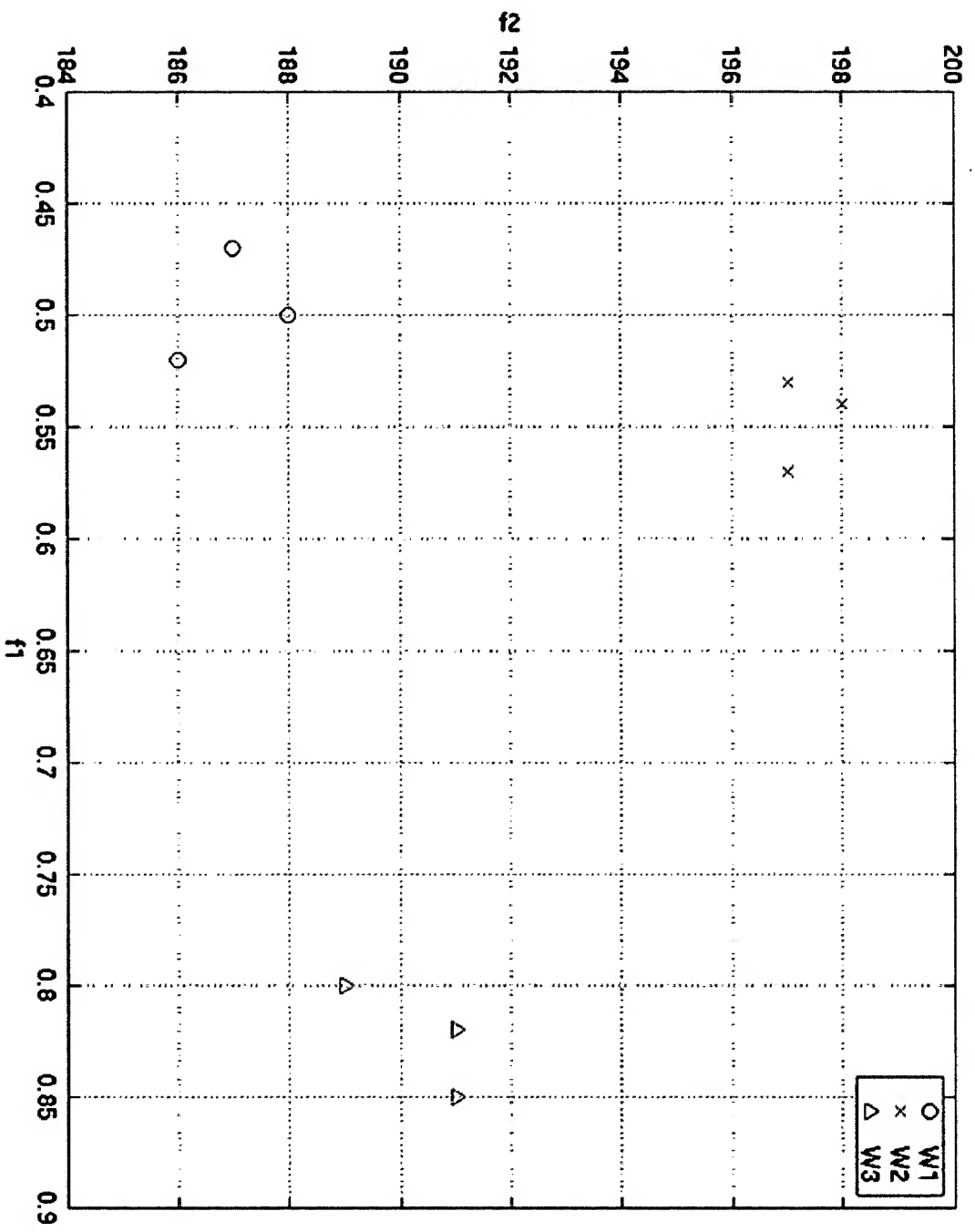


Fig. 12

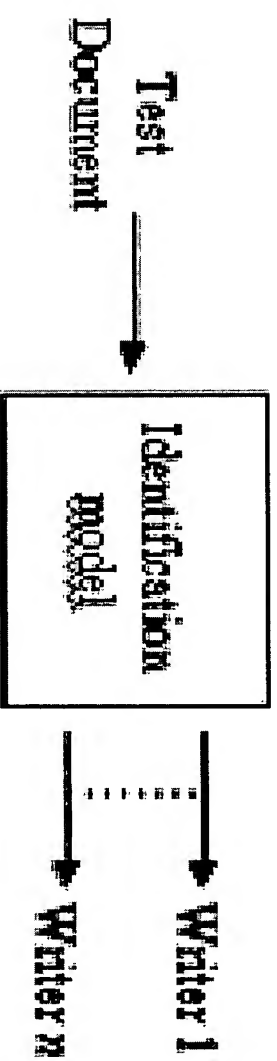


Fig. 13A

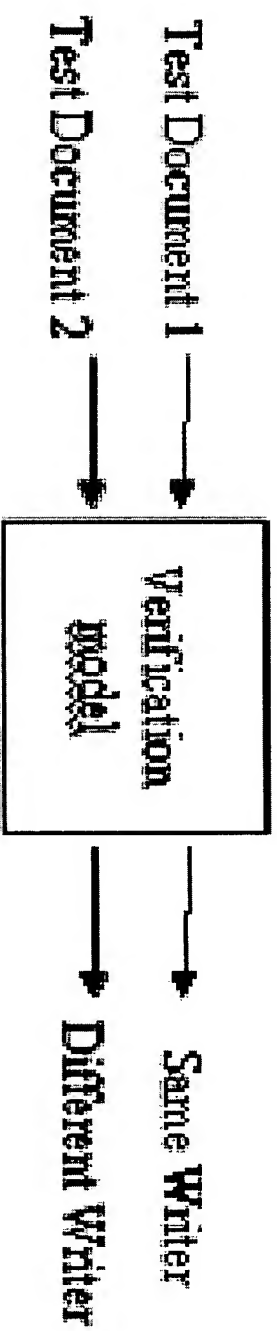


Fig. 13B

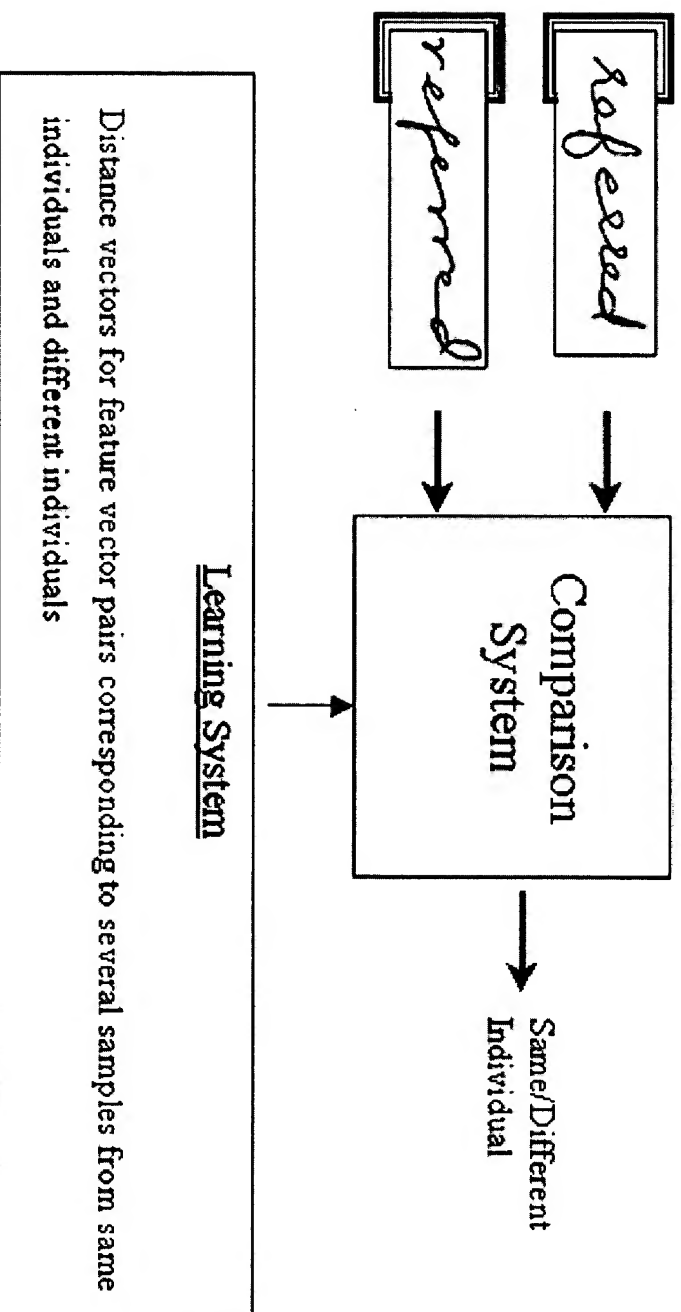


Fig. 14

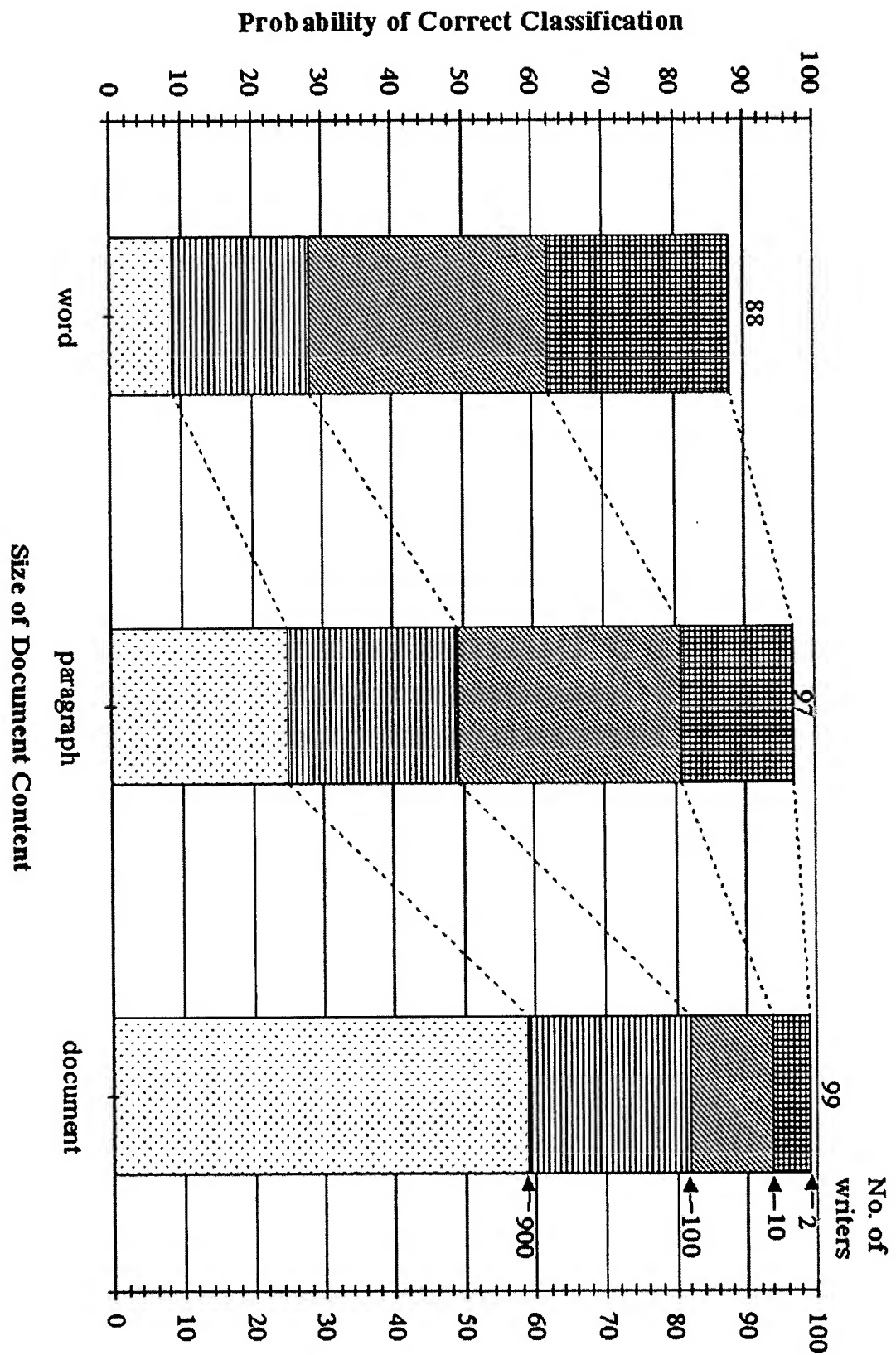


Fig. 15

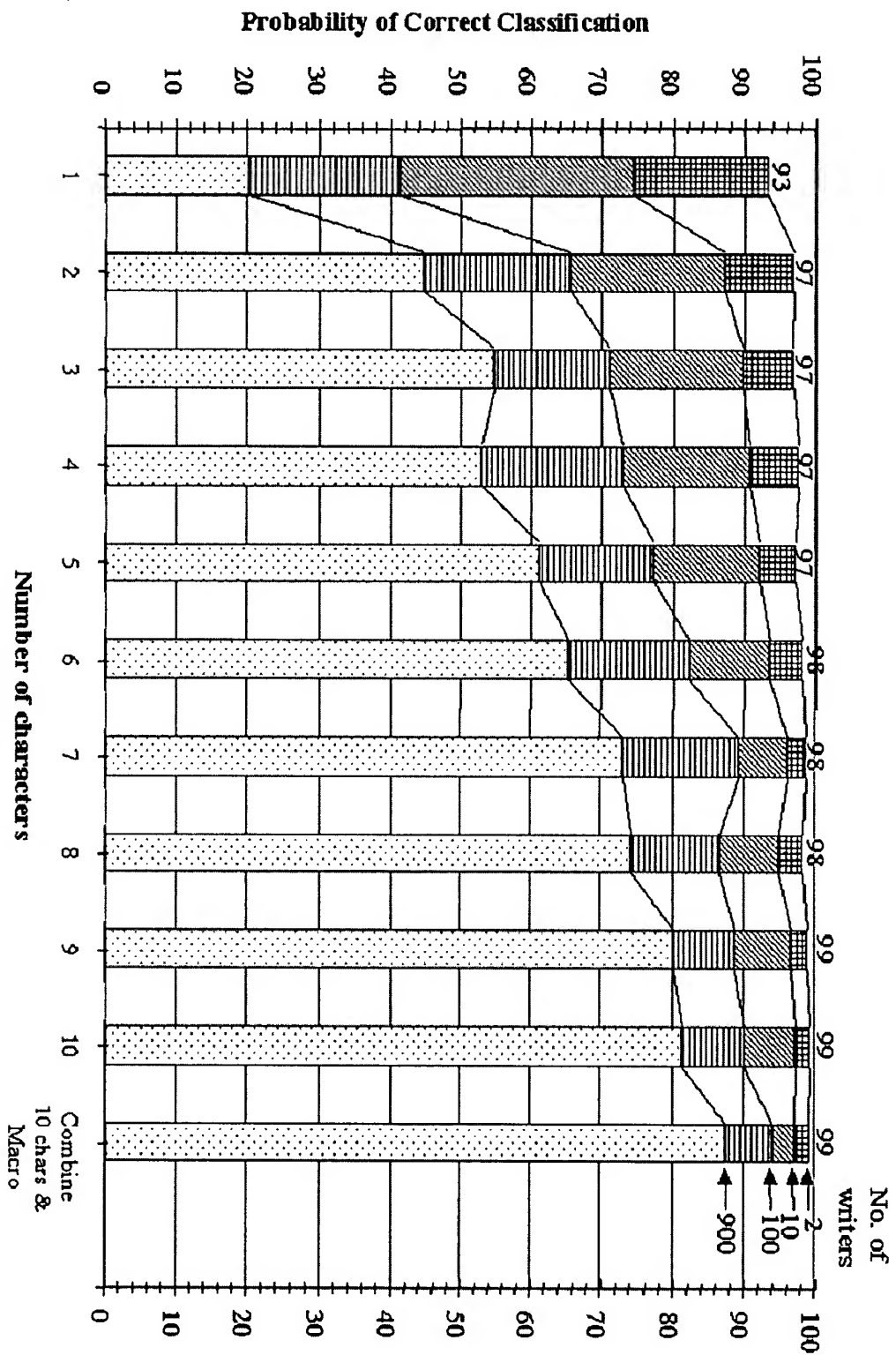


Fig. 16

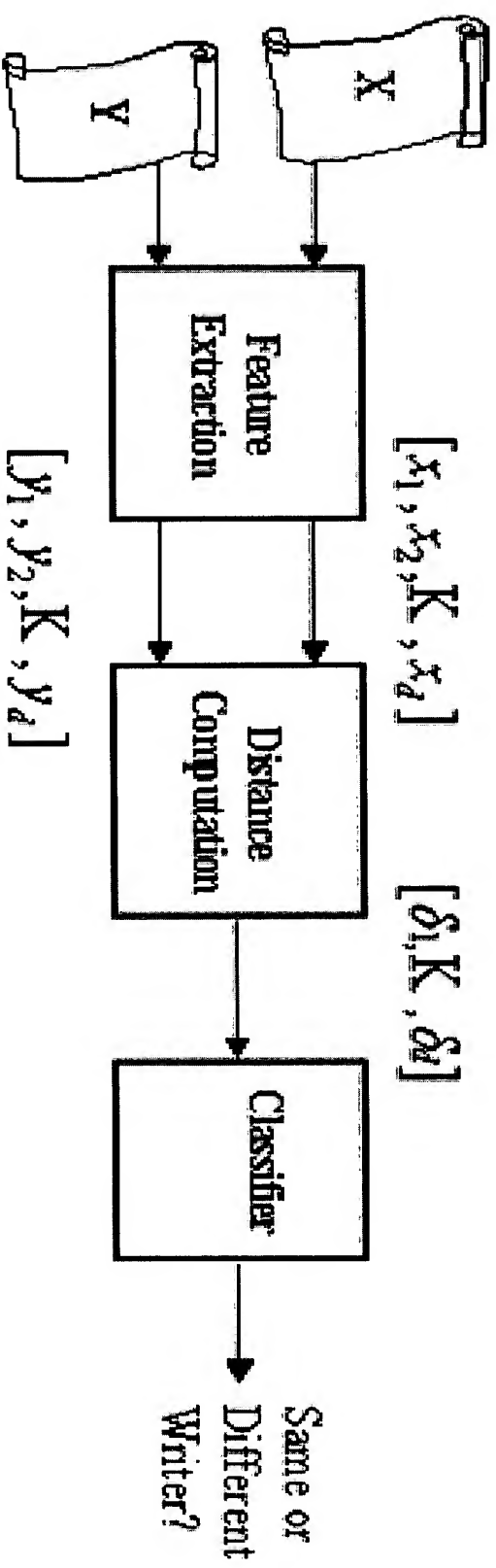


Fig. 17

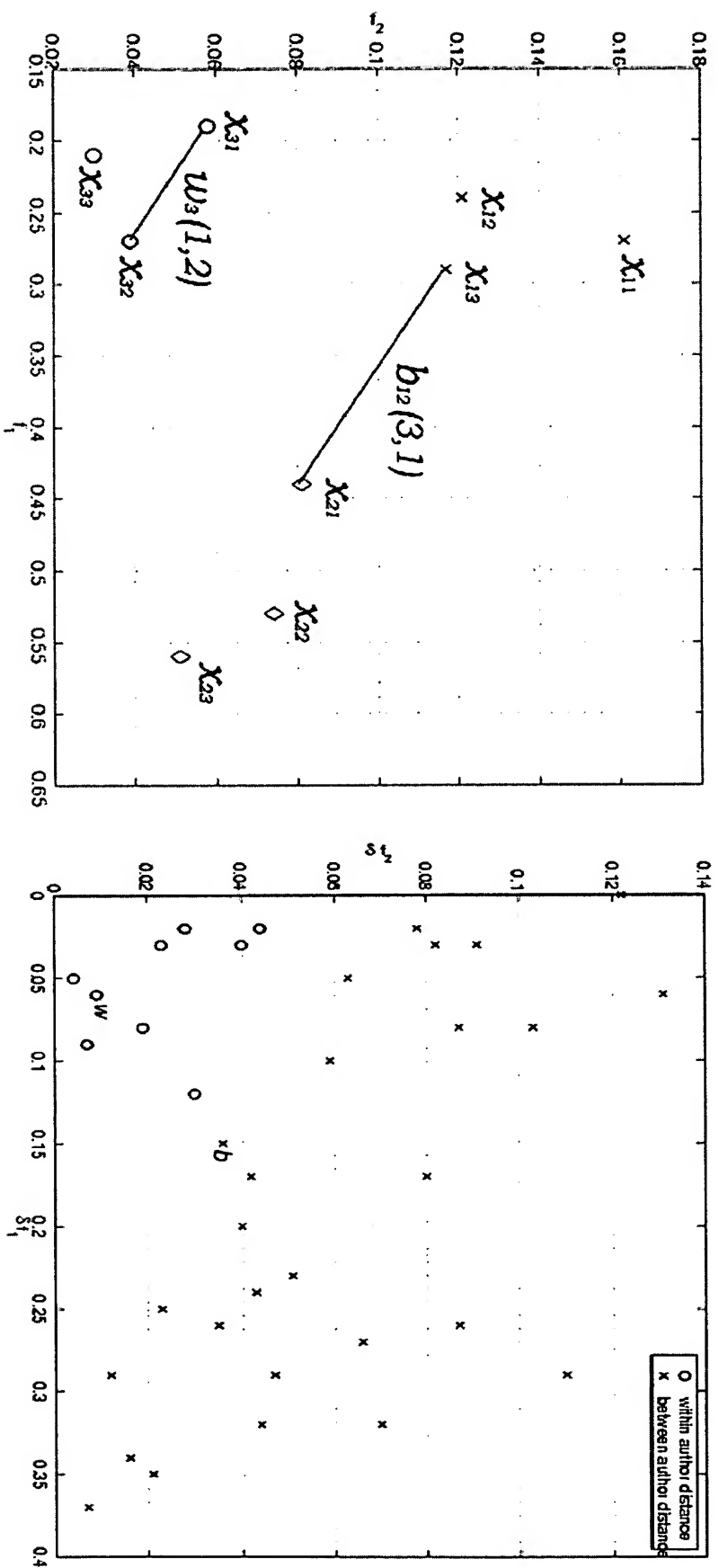


Fig. 18

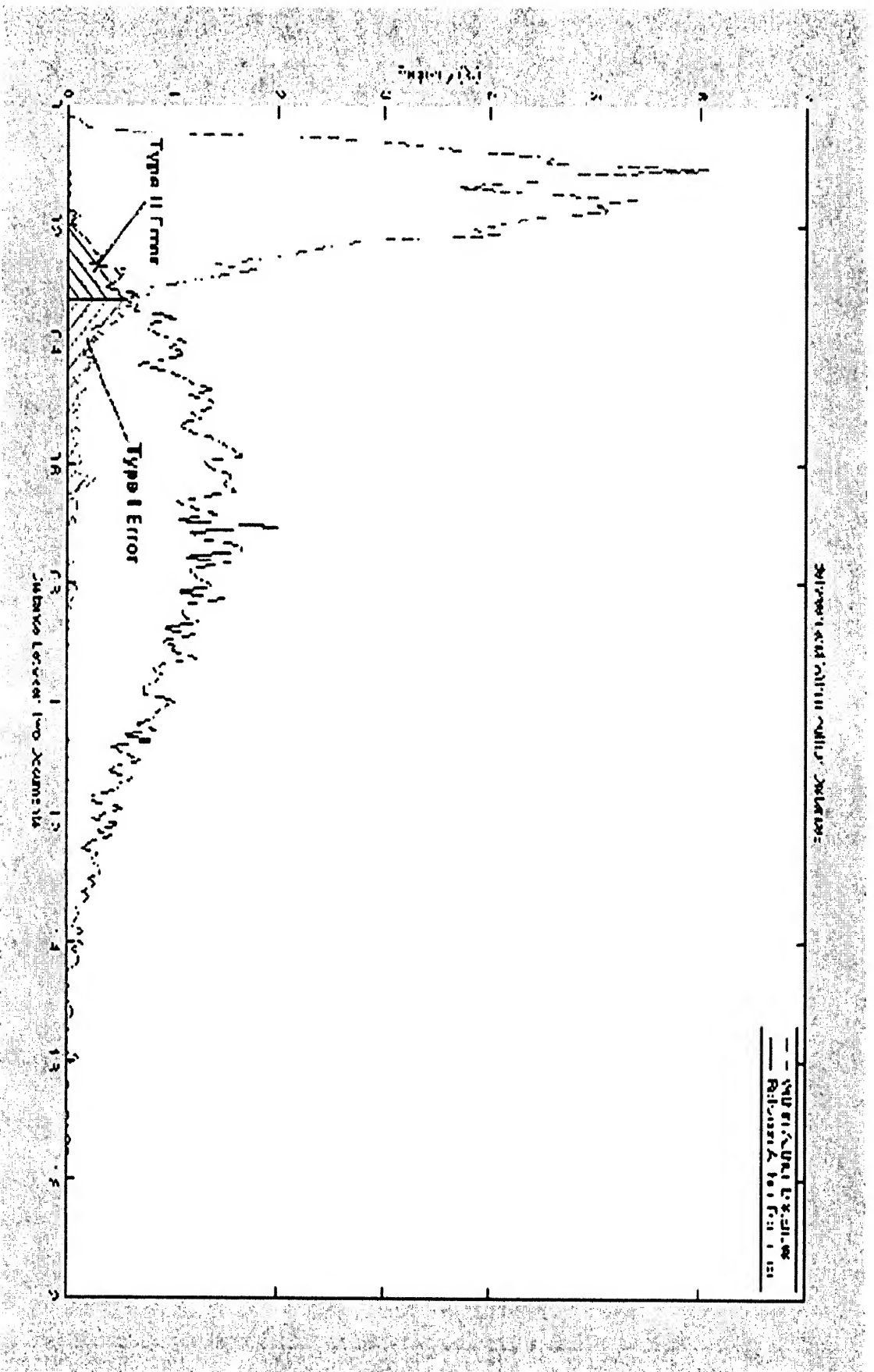


Fig. 19

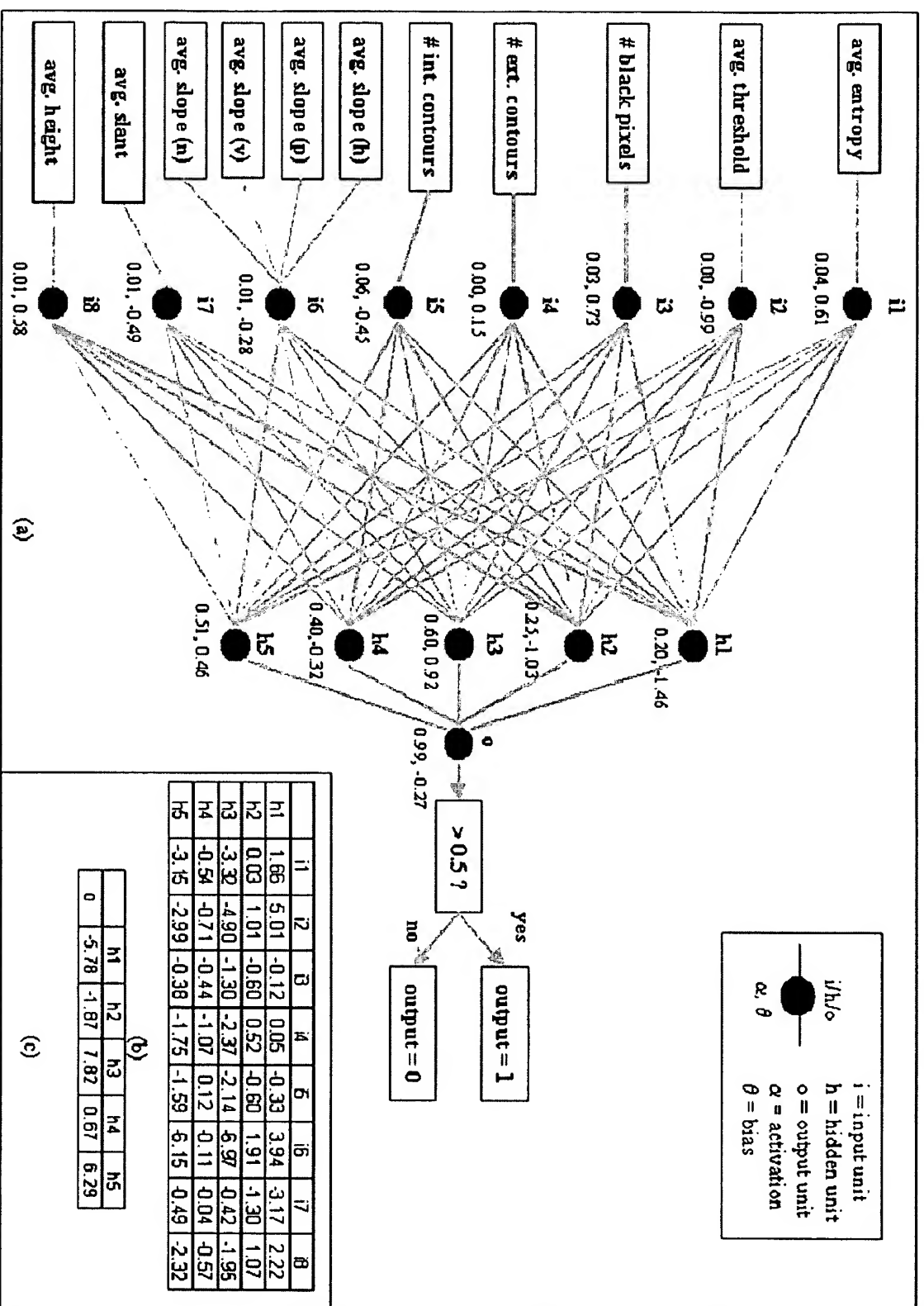


Fig. 20

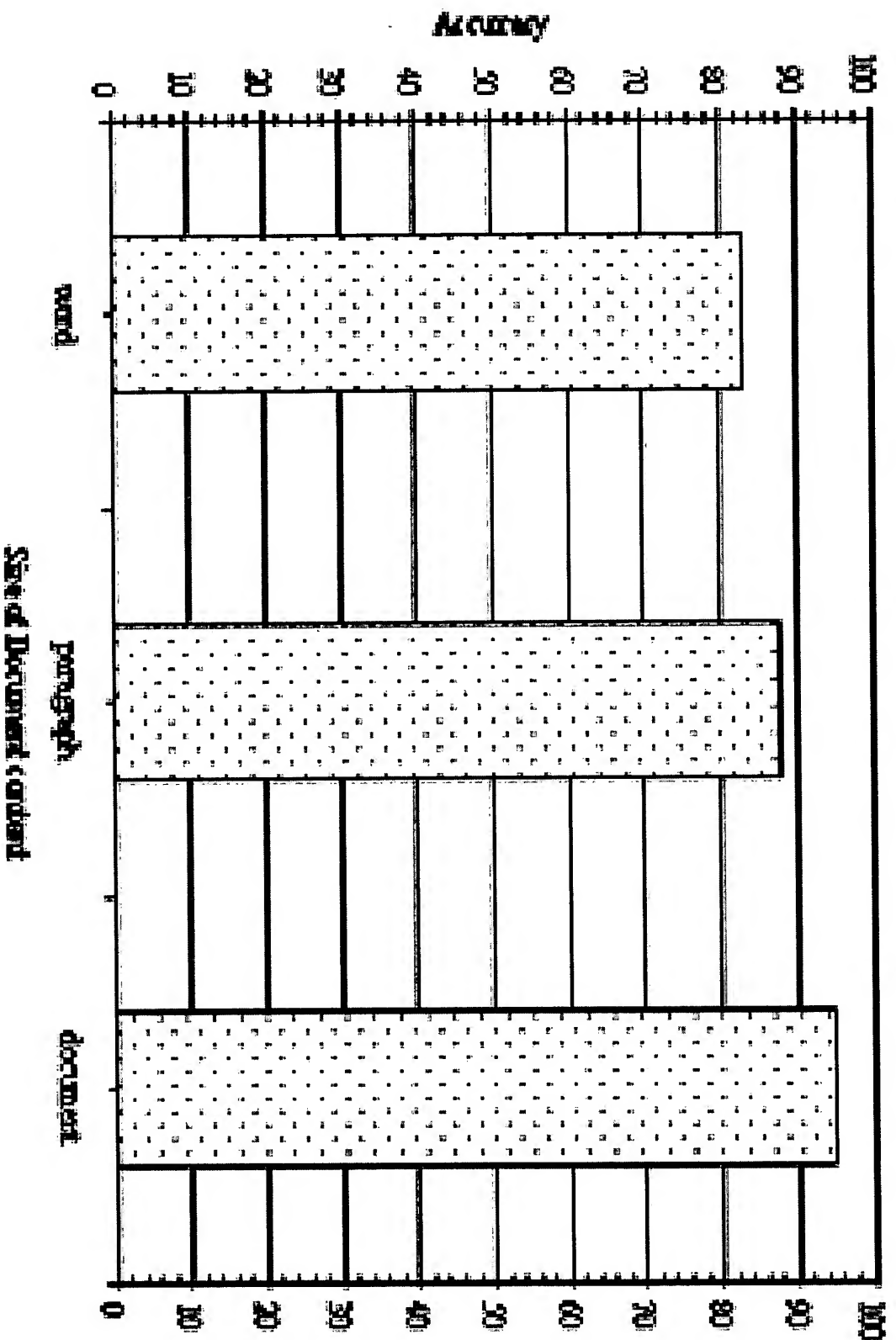


Fig. 21

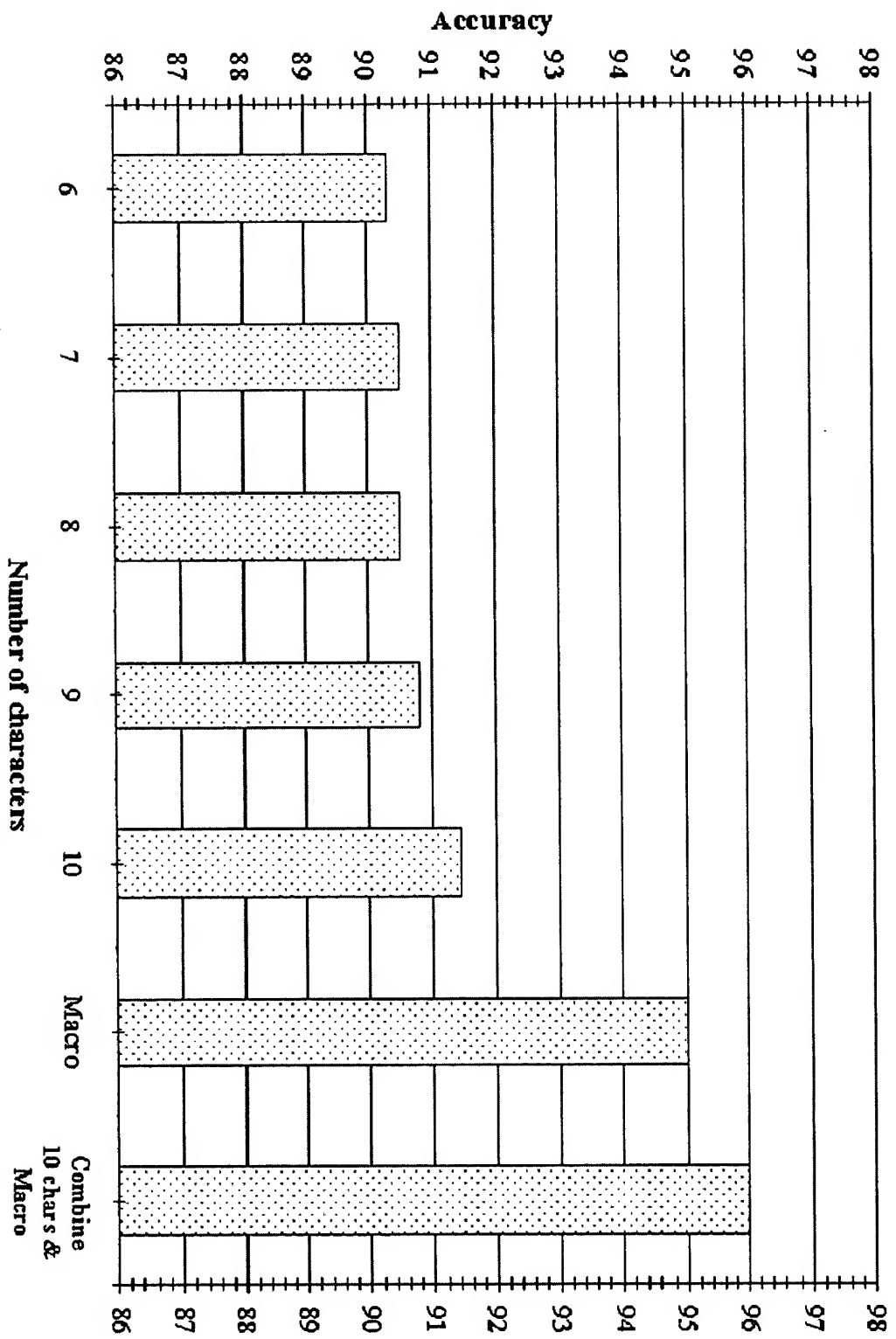


Fig. 22

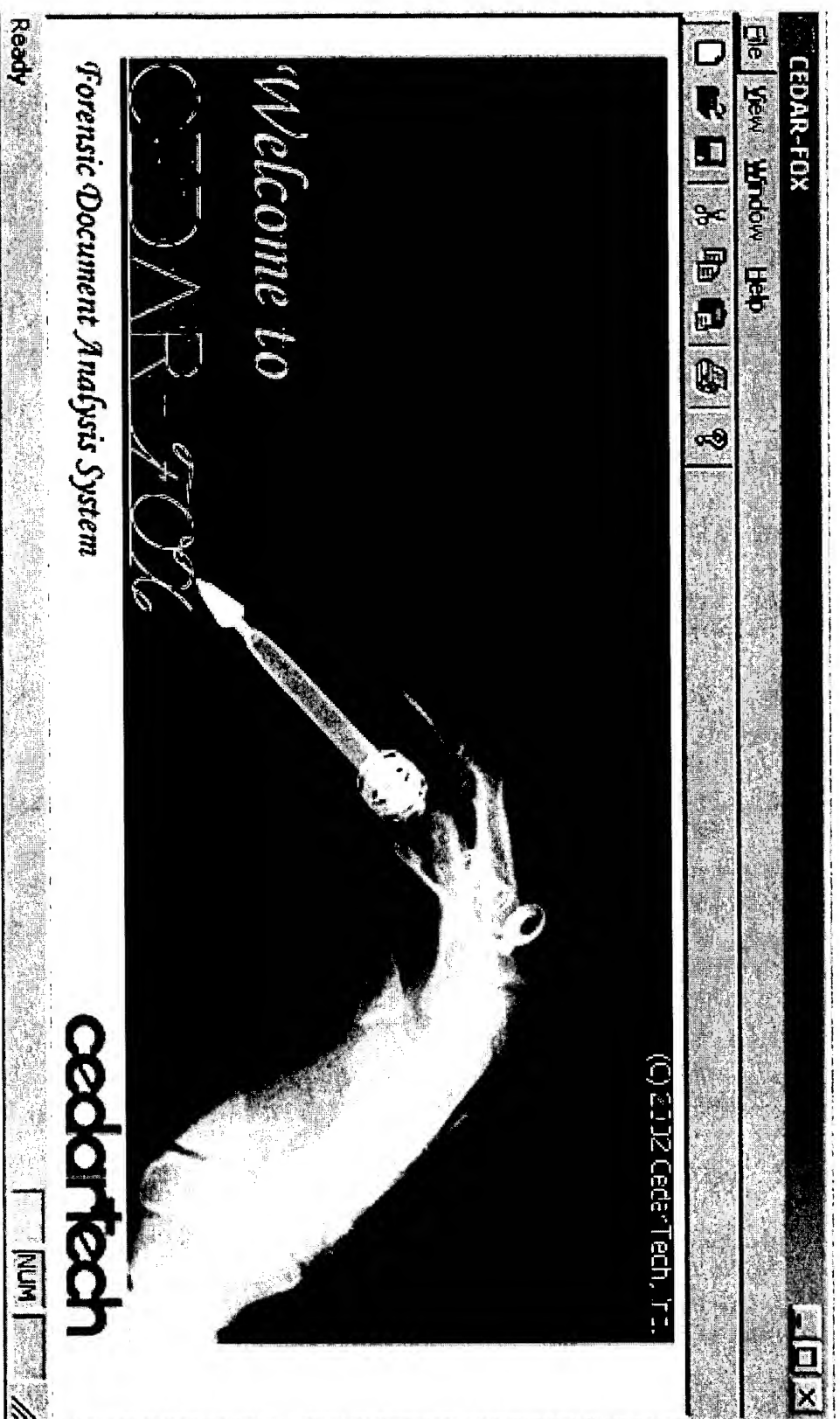


Fig. 23

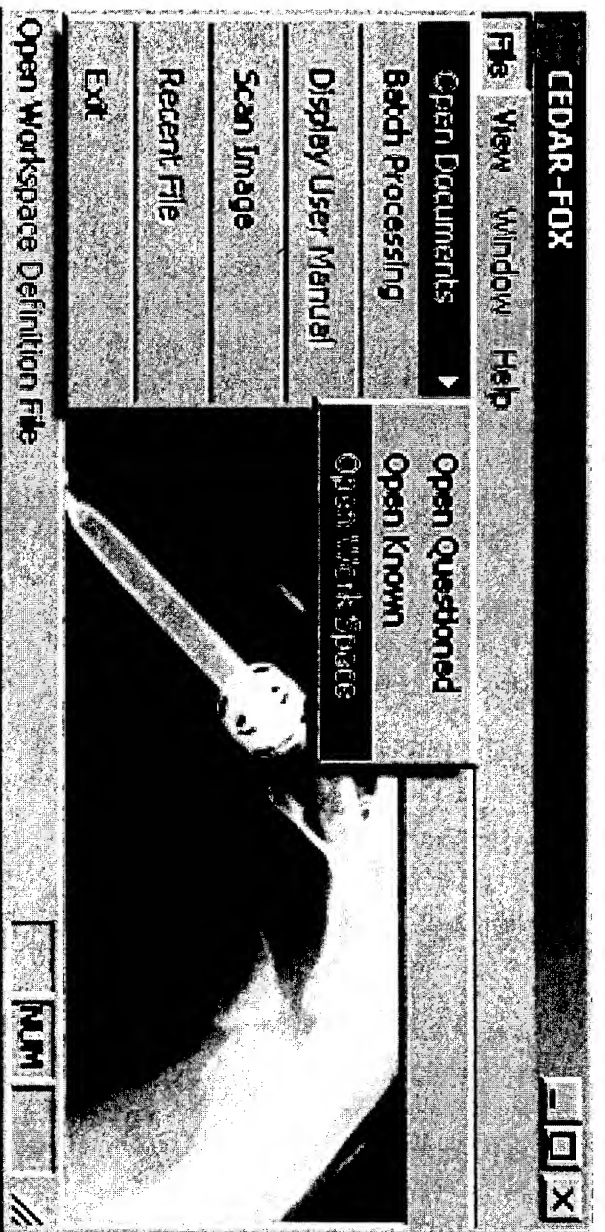
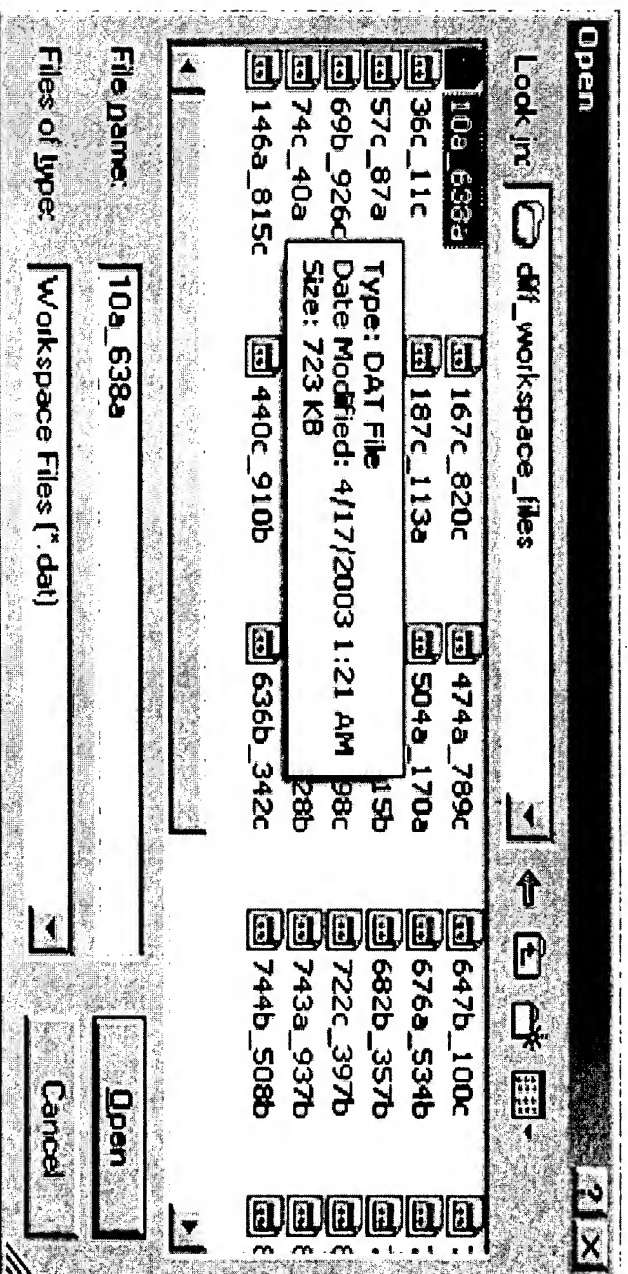


Fig. 24A

Fig. 24B



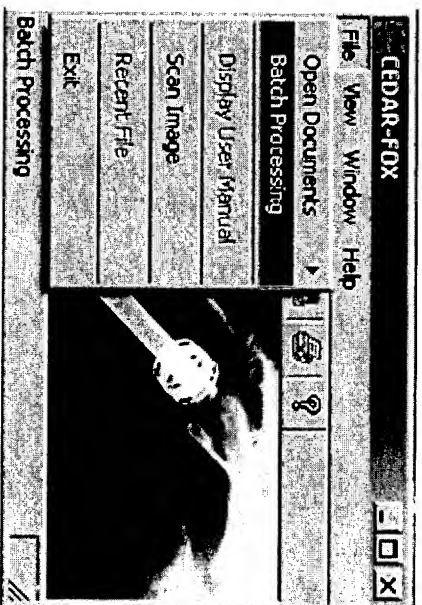


Fig. 25A

Fig. 25B

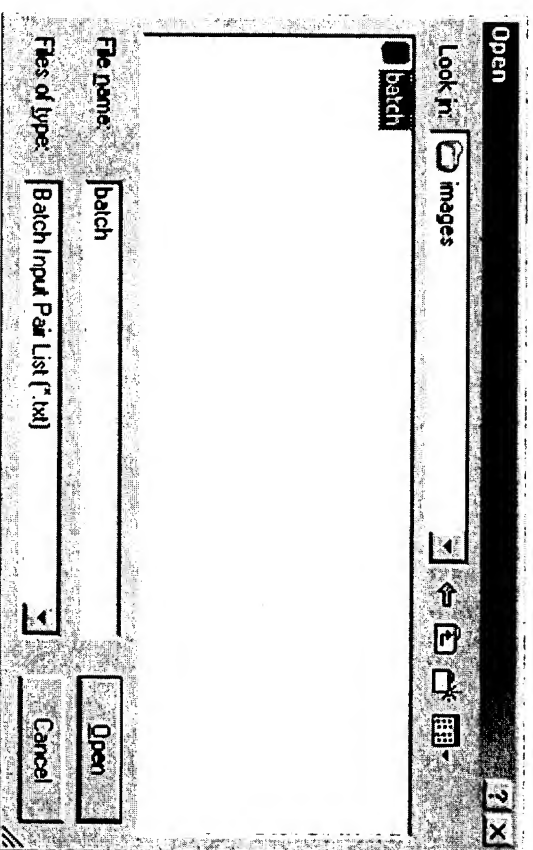
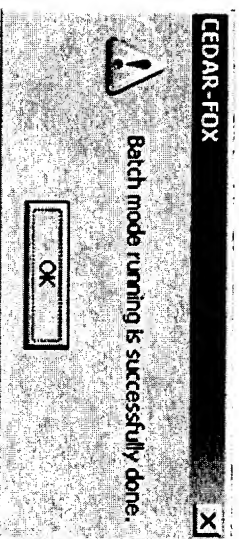


Fig. 25C

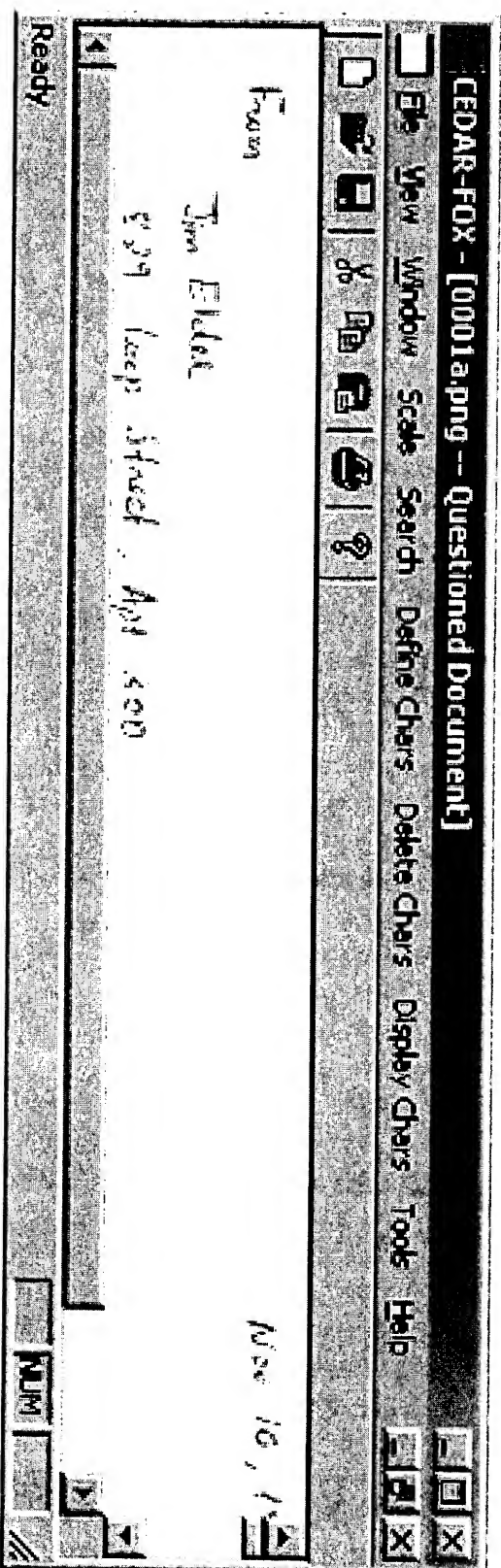


Fig. 26

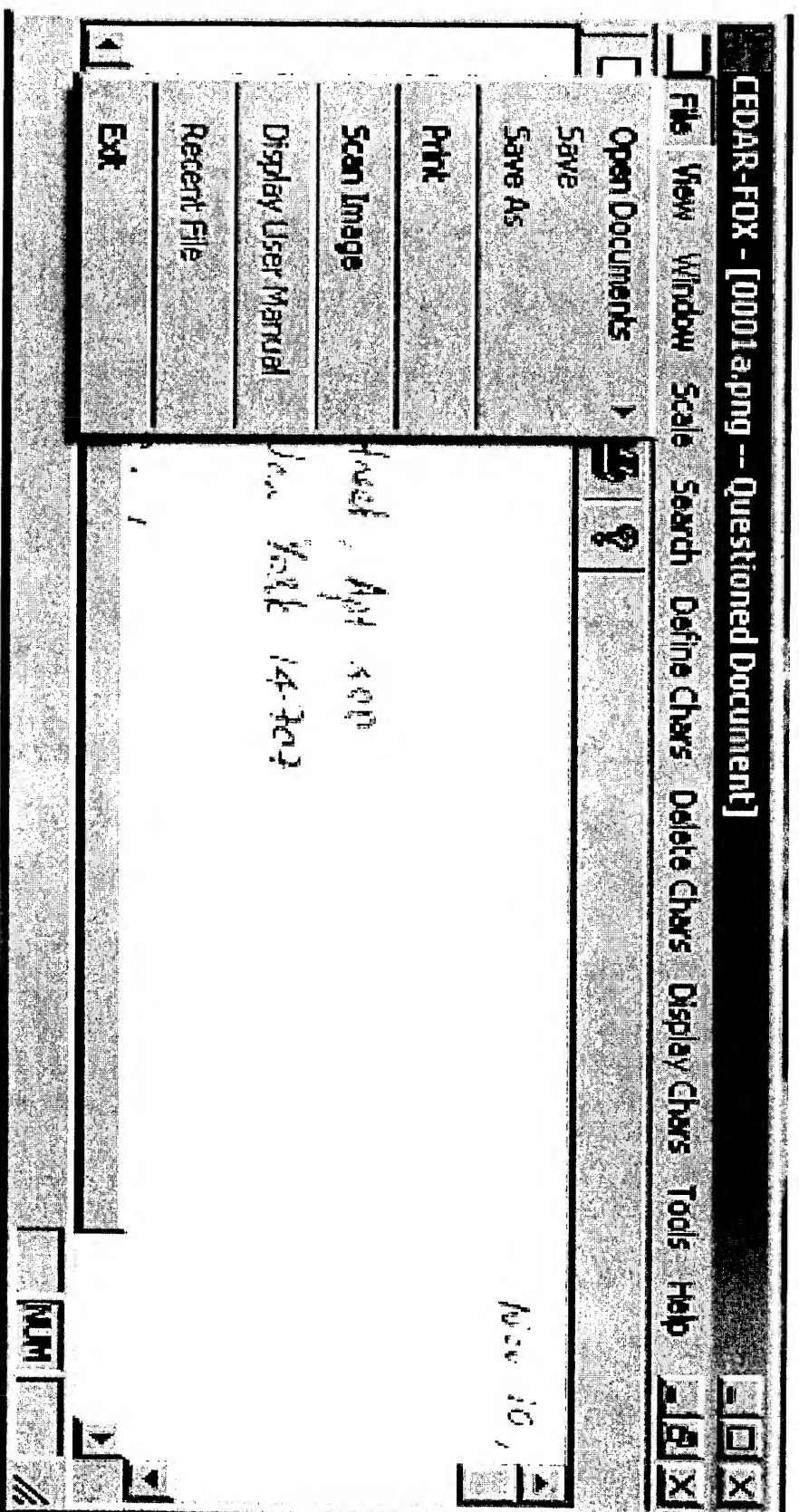


Fig. 27

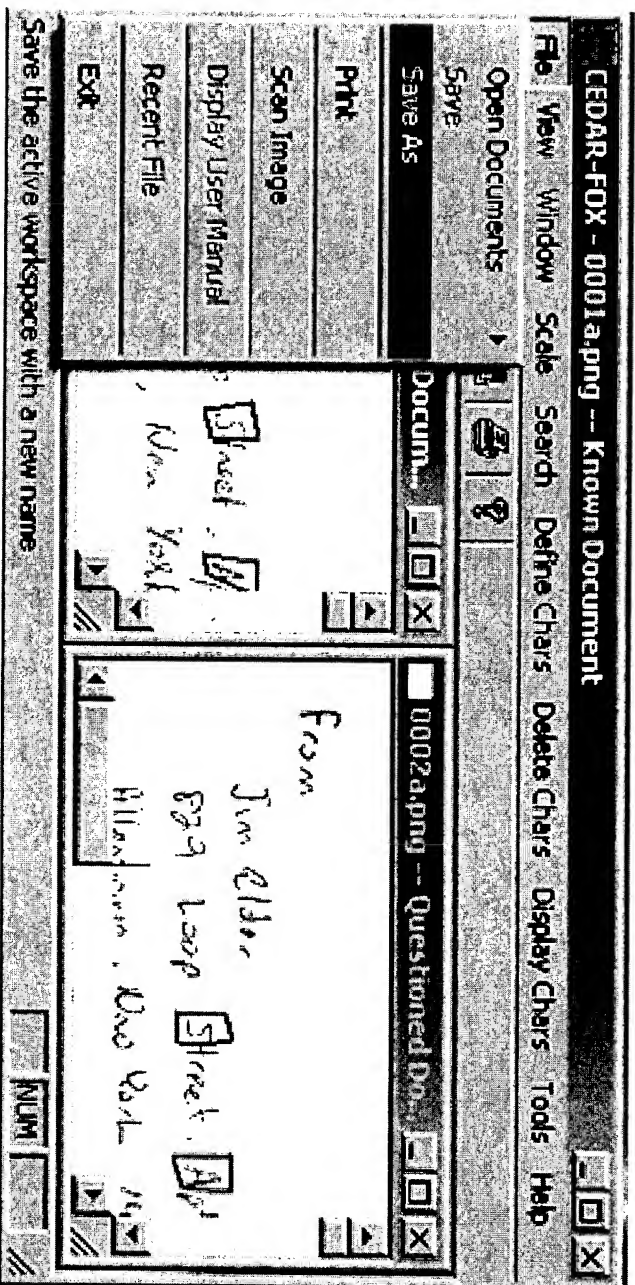


Fig. 28A

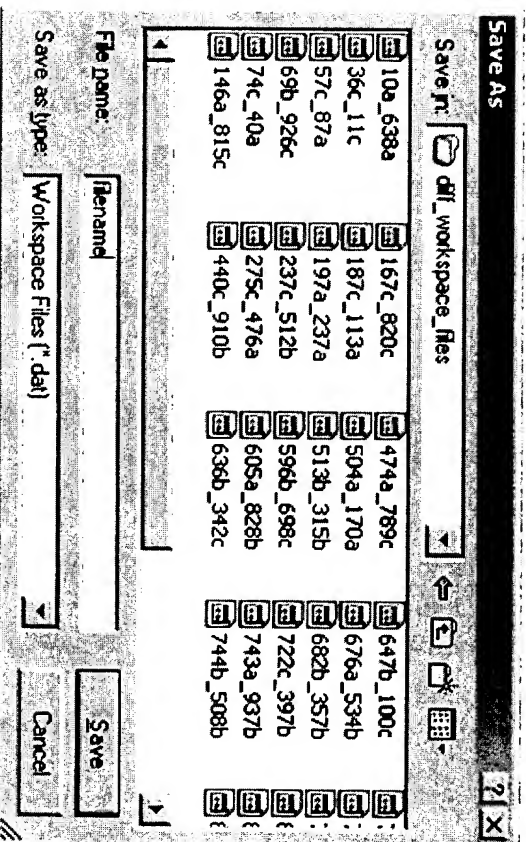


Fig. 28B

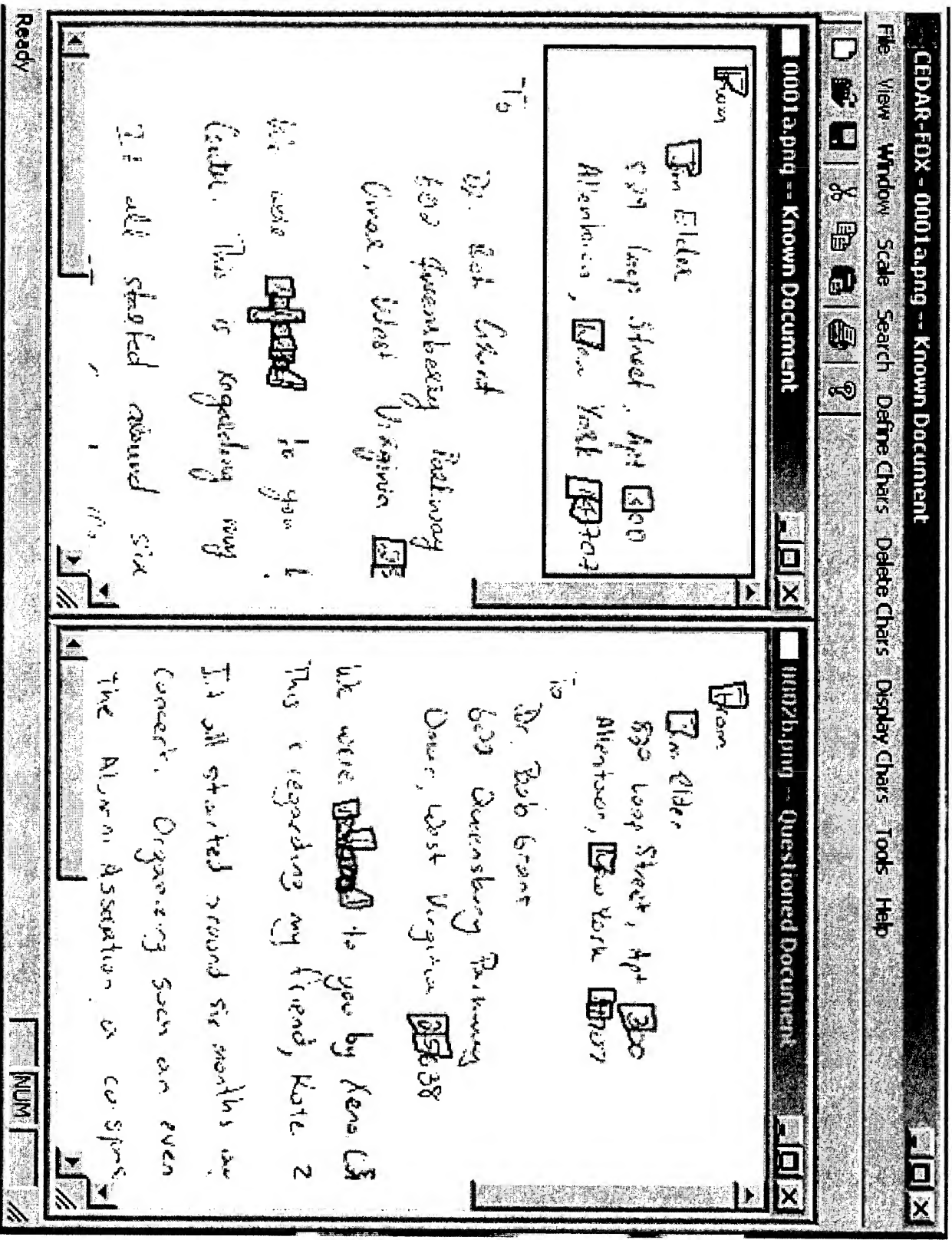


Fig. 30A

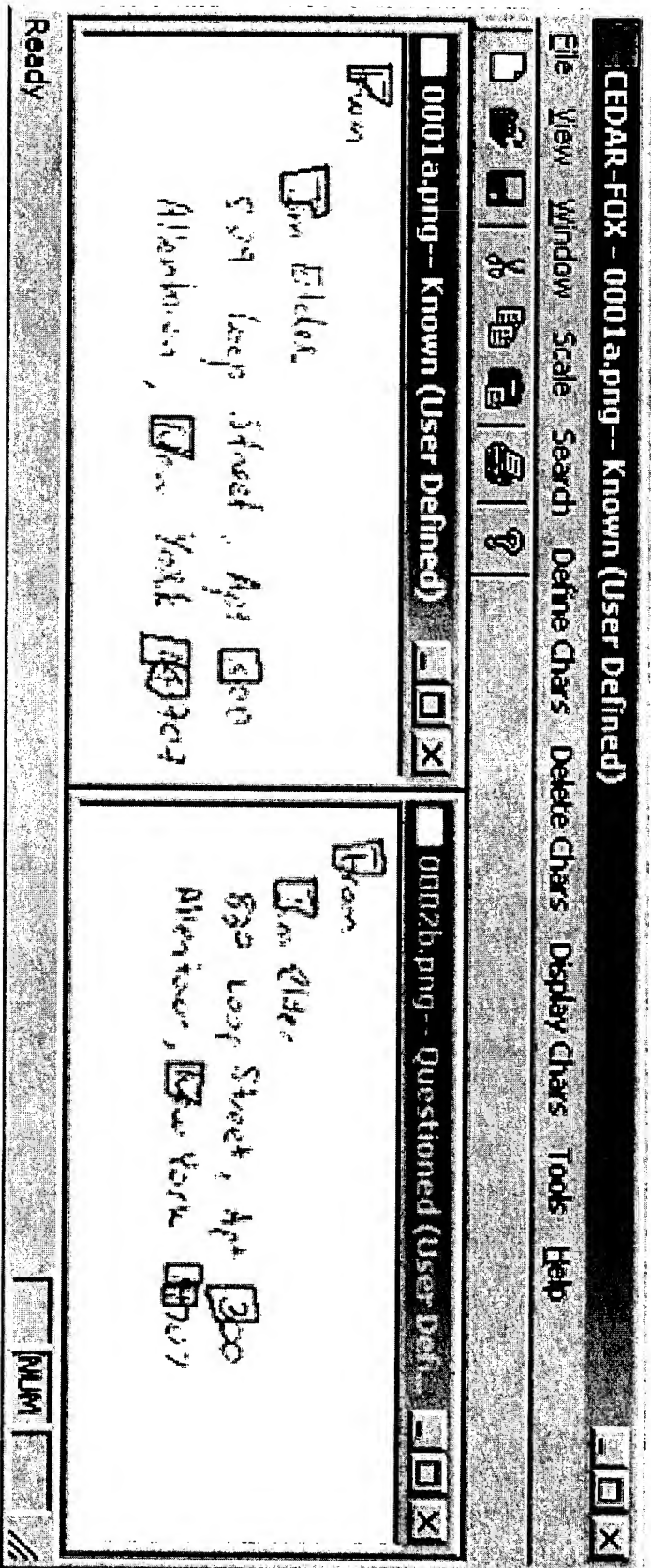
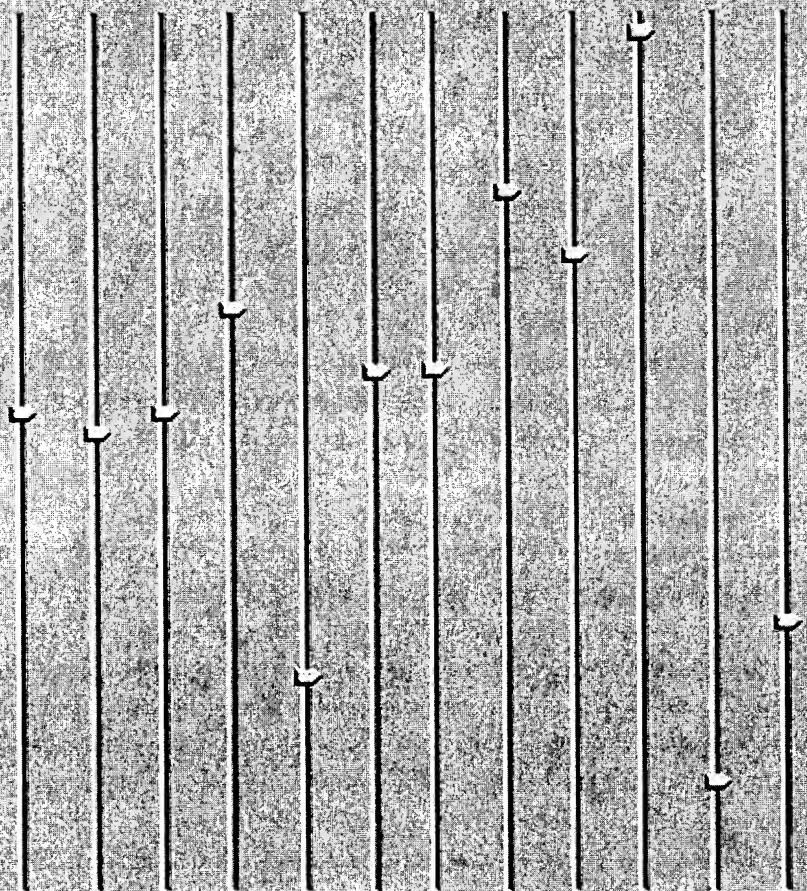


Fig. 30B

Macro Features For File - Known (User Defined)

Average Entropy	0.6
Threshold	199
Total Black Pixels	13379
Exterior Contours	12
Interior Contours	7
Horizontal Slope	0.23
Positive Slope	0.22
Vertical Slope	0.41
Negative Slope	0.12
Average Width	5
Average Slant	4.2
Average Height	30



OK

Fig. 31

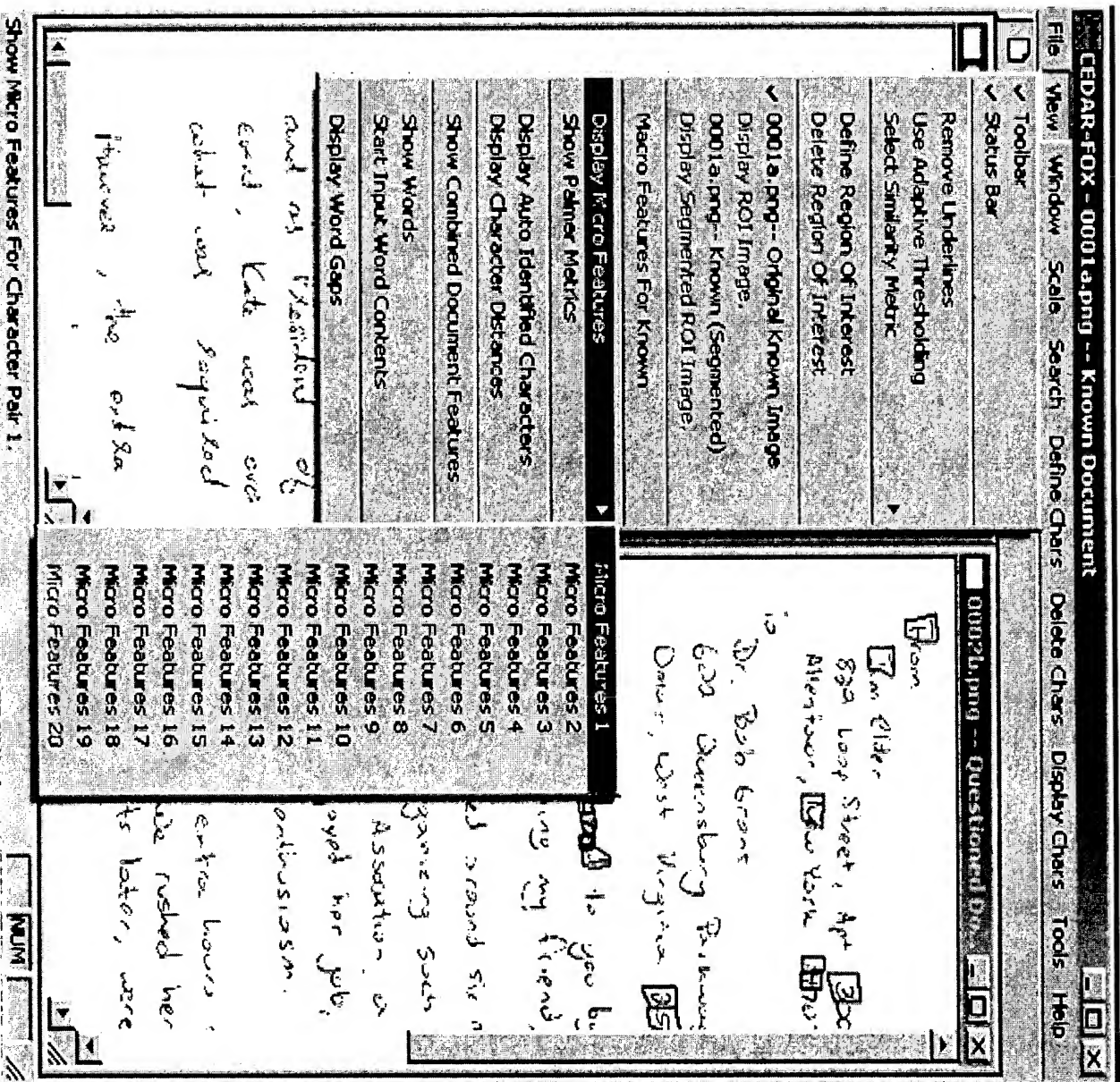


Fig. 32

Micro Features for Character Pair 1 - r'

Gradient

Questioned: 1.95

Known: 1.95

Questioned: 96-192

Known: 96-192

Structure

Questioned: 1.95

Known: 1.95

Questioned: 96-192

Known: 96-192

Concavity

Questioned: 1.64

Known: 1.64

Questioned: 85-128

Known: 85-128

Similarity

0.56

Type

Correlation

OK

Fig. 33

a b c d e f g h i j k l m
 n o p q r s t u v w x y z
 aa bb cc dd ee ff gg hh ii jj kk ll
 mm nn oo pp qq rr ss tt uu vv ww xx yy zz

Fig. 34A

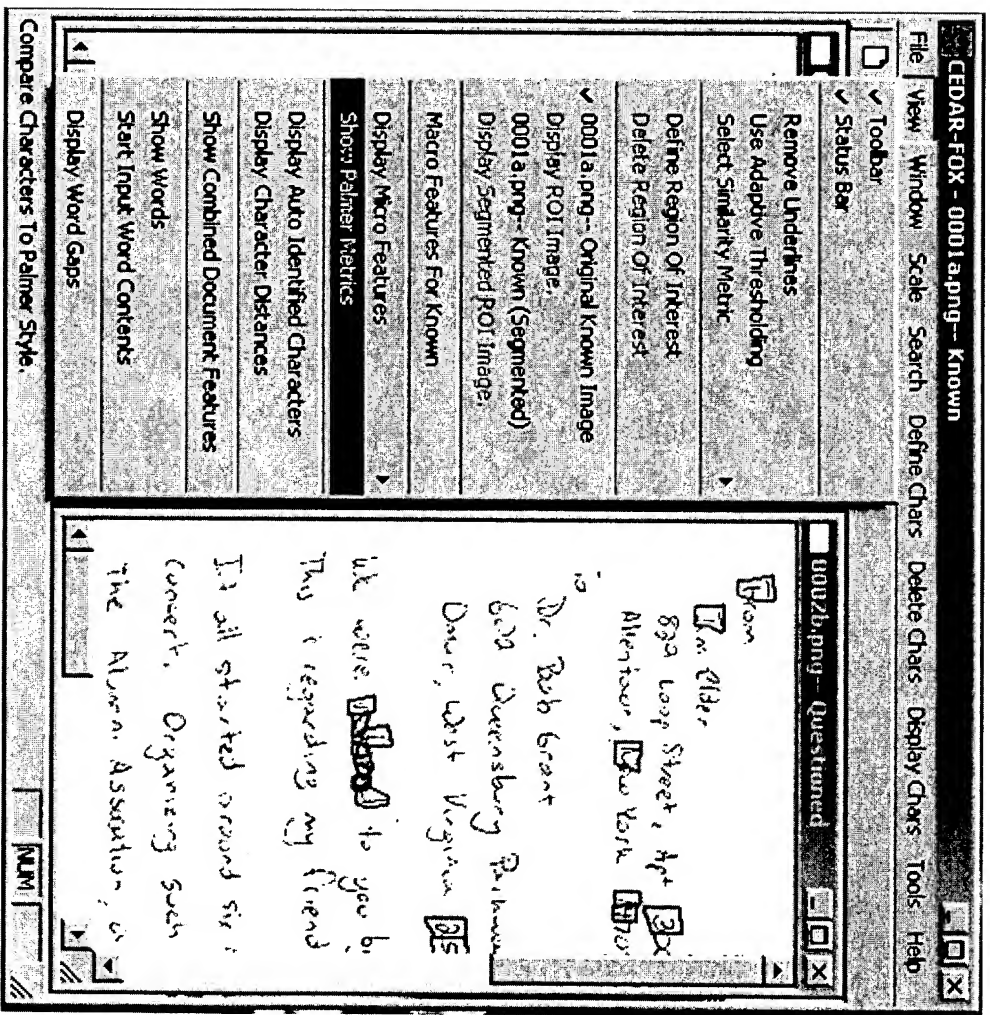


Fig. 34B

Palmer Metrics Comparison



Questioned

00002b.png

Known

0001a.png

Questioned	Char.	Similarity
Glyph 1	r	0.51
Glyph 2	e	0.48
Glyph 3	f	0.48
Glyph 4	e	0.53
Glyph 5	r	0.54
Glyph 6	f	0.53
Glyph 7	e	0.64
Glyph 8	d	0.53
Glyph 9	b	0.48
Glyph 10	h	0.48
Glyph 11	3	0.62
Glyph 12	1	0
Glyph 13	4	0.55
Glyph 14	2	0.5
Glyph 15	5	0.65
Glyph 16	F	0.57
Glyph 17	J	0.46
Glyph 18	N	0.46
Glyph 19	K	0.58
Glyph 20		0
Overall		0.52

Known	Char.	Similarity
Glyph 1	r	0.59
Glyph 2	e	0.59
Glyph 3	f	0.56
Glyph 4	e	0.59
Glyph 5	r	0.55
Glyph 6	f	0.59
Glyph 7	e	0.61
Glyph 8	d	0.66
Glyph 9	b	0.52
Glyph 10	h	0.53
Glyph 11	3	0.65
Glyph 12	1	0.74
Glyph 13	4	0.62
Glyph 14	2	0.64
Glyph 15	5	0.64
Glyph 16	F	0.53
Glyph 17	J	0.43
Glyph 18	N	0.48
Glyph 19	K	0.57
Glyph 20		0
Overall		0.55

Fig. 35

0001a.png -- Known

To

From Elder

501 1st Street, Apt 300
Albany, New York 12206

To

Dr. Bob Grant

600 Queensbury Parkway
Dover, West Virginia 26038

We were ~~delighted~~ to you by Ken Cohen at the Center. This is regarding my friend, Kate Zick.

It all started around six months ago while at "Kulby" Text Center. Organizing such an event and as President of the Alumni Association, as to end, Kate was overwhelmed but she enjoyed her what was requested of her with great zeal and

However, the extra hours affected her health; the stress she poured out. We rushed her to the several hospitals, X-rays and blood tests later, we just ~~delivered~~ a

0002b.png -- Questioned

From

To Elder

501 1st Street, Apt 300
Albany, New York 12206

To

Dr. Bob Grant

600 Queensbury Parkway
Dover, West Virginia 26038

We were ~~delighted~~ to you by Ken Cohen at the University and this is regarding my friend, Kate Zick.

It all started around six months ago while attending the Center. Organizing such an event is no picnic, as a President of the Alumni Association, a co-sponsor of the event, Kate was overwhelmed but she enjoyed her job and did what was requested of her with great enthusiasm.

However, the extra hours affected her health; hollering through her poured out. We rushed her to the hospital, and several blood tests later, were told it was just exhaustion.

Since then in very bad health since. Could you kindly let us the results and give us your opinion?

Thank you!

Fig. 36

Automatically Identified Characters

Distances between Characters of Known and Questioned											
	Weight	Q-Rec	K-Rec	No Dist	Avg Dist		Weight	Q-Rec	K-Rec	No Dist	Avg Dist
0	0.1140	2	0	0	0.00	I	0.4535	0	0	0	0.00
1	0.0376	0	0	0	0.00	m	0.7336	0	0	0	0.00
2	0.5645	0	0	0	0.00	n	0.8190	0	0	0	0.00
3	0.3617	0	0	0	0.00	o	0.5224	0	0	0	0.00
4	0.6067	1	0	0	0.00	p	0.4298	0	0	0	0.00
5	0.5435	3	1	3	0.64	q	0.5634	0	0	0	0.00
6	0.5359	2	0	0	0.00	r	0.8107	0	0	0	0.00
7	0.3342	1	1	1	0.69	s	0.6300	1	0	0	0.00
8	0.3662	1	0	0	0.00	t	0.5939	5	0	0	0.00
9	0.4833	2	0	0	0.00	u	0.5916	0	0	0	0.00
a	0.5239	0	0	0	0.00	v	0.7237	0	0	0	0.00
b	0.9462	0	2	0	0.00	w	0.7403	0	3	0	0.00
c	0.2574	0	2	0	0.00	x	0.4114	0	0	0	0.00
d	0.7734	1	1	1	0.55	y	0.7803	0	0	0	0.00
e	0.3877	9	2	18	0.58	z	0.5837	0	0	0	0.00
f	0.6398	0	0	0	0.00	A	0.7019	4	0	0	0.00
g	0.5480	0	0	0	0.00	B	0.8126	0	0	0	0.00
h	0.8611	2	1	2	0.70	C	0.2924	0	0	0	0.00
i	0.2962	0	0	0	0.00	D	0.8739	1	0	0	0.00
j	0.4294	0	0	0	0.00	E	0.6187	0	0	0	0.00
k	0.5717	0	0	0	0.00						
						F	0.8220	0	1	0	0.00
						G	0.9548	0	0	0	0.00
						H	0.8792	0	0	0	0.00
						I	0.9624	0	0	0	0.00
						J	0.8875	0	0	0	0.00
						K	0.8265	2	0	0	0.00
						L	0.7053	2	1	2	0.65
						M	0.7930	1	0	0	0.00
						N	0.9119	1	1	1	0.63
						O	0.2747	1	0	0	0.00
						P	0.4434	1	0	0	0.00
						Q	0.6820	0	0	0	0.00
						R	0.6169	0	0	0	0.00
						S	0.6872	0	0	0	0.00
						T	0.4114	1	0	0	0.00
						U	0.5845	1	0	0	0.00
						V	0.7629	0	0	0	0.00
						W	0.8306	0	5	0	0.00
						X	0.2394	0	0	0	0.00
						Y	0.6187	2	0	0	0.00
						Z	0.5916	1	0	0	0.00

OK

Fig. 37

Document Features

Files

Questioned 0000b.png

Known 0001a.png

Manual Micro Features

Enable	Q-Feat	K-Feat	Difference	Log Same	Log Diff	LLR
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glyph 1	f	f	0.56	0.14	1.51	-1.370
Glyph 2	e	e	0.57	0.08	1.63	-1.550
Glyph 3	f	f	0.56	-0.33	1.35	-1.680
Glyph 4	e	e	0.63	1.64	0.73	0.9100
Glyph 5	f	f	0.49	-1.55	1.41	-2.960
Glyph 6	f	f	0.56	0.06	1.52	-1.460
Glyph 7	e	e	0.61	0.76	1.63	-0.870
Glyph 8	d	d	0.61	0.3	1.57	-1.270
Glyph 9	b	b	0.68	1.38	0.62	0.7600
Glyph 10	h	h	0.57	-0.81	1.45	-2.260
Glyph 11	3	3	0.62	1	1.73	-0.730
Glyph 12	1	1	0	0	0	0.0000
Glyph 13	4	4	0.52	-2.7	1.09	-3.790
Glyph 14	2	2	0.51	-1.99	1.17	-3.160
Glyph 15	5	5	0.7	1.8	0.53	1.2700
Glyph 16	F	F	0.63	1.17	0.89	0.2800
Glyph 17	J	J	0.69	1.39	-0.21	1.6000
Glyph 18	N	N	0.72	1.53	-0.72	2.2500
Glyph 19	K	K	0.64	1.24	1.17	0.0700
Sum				5.11	19.07	-13.96

Macro Features

Enable	Q-Feat	K-Feat	Difference	Log Same	Log Diff	LLR
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entropy	0.44	0.63	0.09	1.54	0.71	0.83
Threshold	196	198	2	-1.6	-4.51	2.91
Black Pixels	163877	204649	40972	-11.38	-12.61	1.23
Ext. Cont.	30	20	10	-5.66	-2.97	2.69
Int. Cont.	11	22	11	-8.26	-3.04	-5.22
H. Slope	0.24	0.2	0.04	0.97	1.68	-0.71
P. Slope	0.21	0.24	0.03	2.47	1.13	1.34
V. Slope	0.36	0.42	0.05	0	1.44	-1.44
N. Slope	0.17	0.12	0.04	-1.71	2.03	-3.74
Stroke Width	5	4	1	-1.6	-1.08	-0.52
Avg. Start	-0.45	6.24	6.7	-3.7	-3.33	-0.37
Avg. Height	26	30	4	-2.19	3.09	0.90
Sum				-31.12	-23.63	7.48

Auto Micro Features

Use Auto Micro features? ☐

Chars from Question: 48

Chars from Known: 21

Number of Distances: 28

Log Same: 20.55

Log Diff: 5.17

Document Similarity

Same Writer? No

Log Likelihood Ratio: -47.16

Micro Similarity: Correlation

Fig. 38

Jim Elder
2000 Street, Apt 300
New York

Jr. Bob Grant
602 Jucensberry Parkway
Omar, West Virginia

We were referred to you by a friend, Kate
concerning my friend, Kate
who is attending the University Medical

It all started around six months ago while attending the
"Ruben" Jazz concert. During such an event as to picnic,
and as President of the Alumni Association, a co-sponsor of the
event, Kate was overworked. But she enjoyed her job and did
what was required of her with great zeal and enthusiasm.

However, the extra hours affected her health, halfway through
the show she passed out. We rushed her to the hospital and
several questions, and blood tests later, were told it was
just exhaustion.

ate's been on very bad health since. Could you kindly take a

Fig. 40

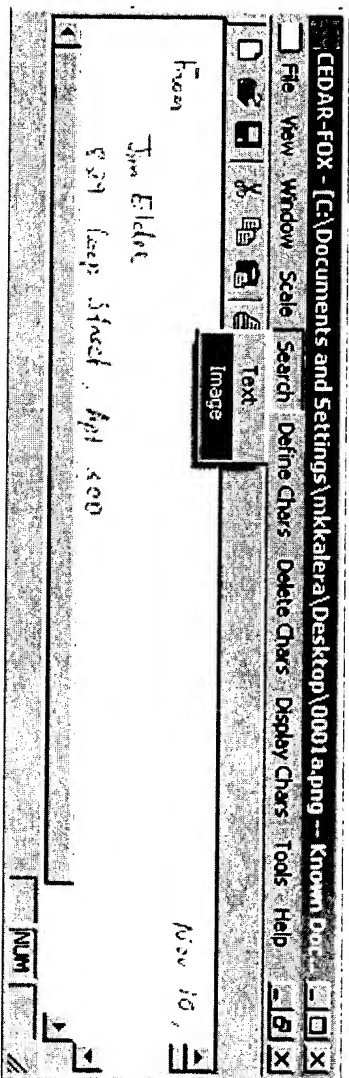


Fig. 41A

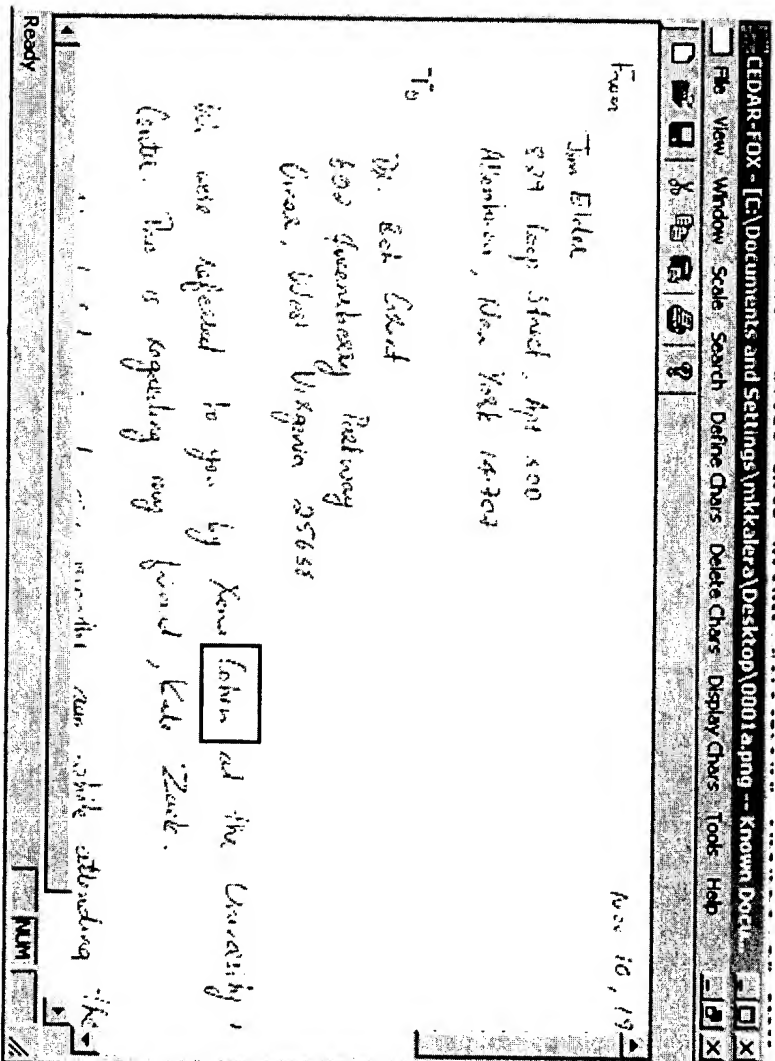


Fig. 41B

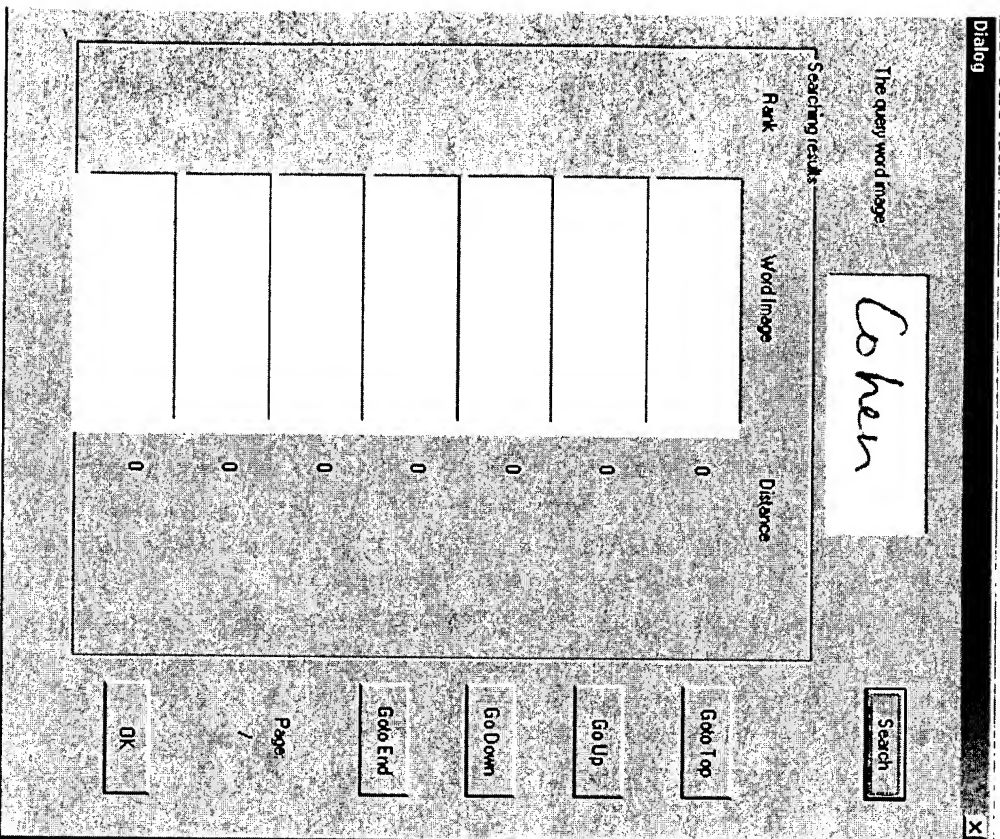


Fig. 42A

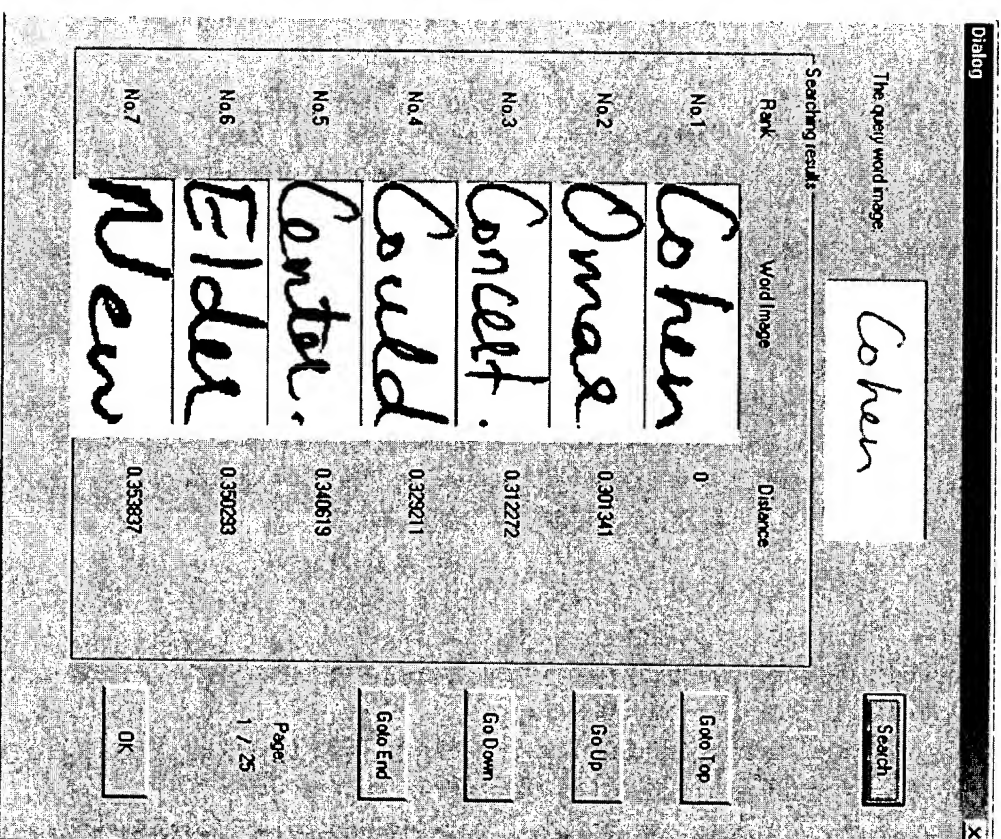


Fig. 42B

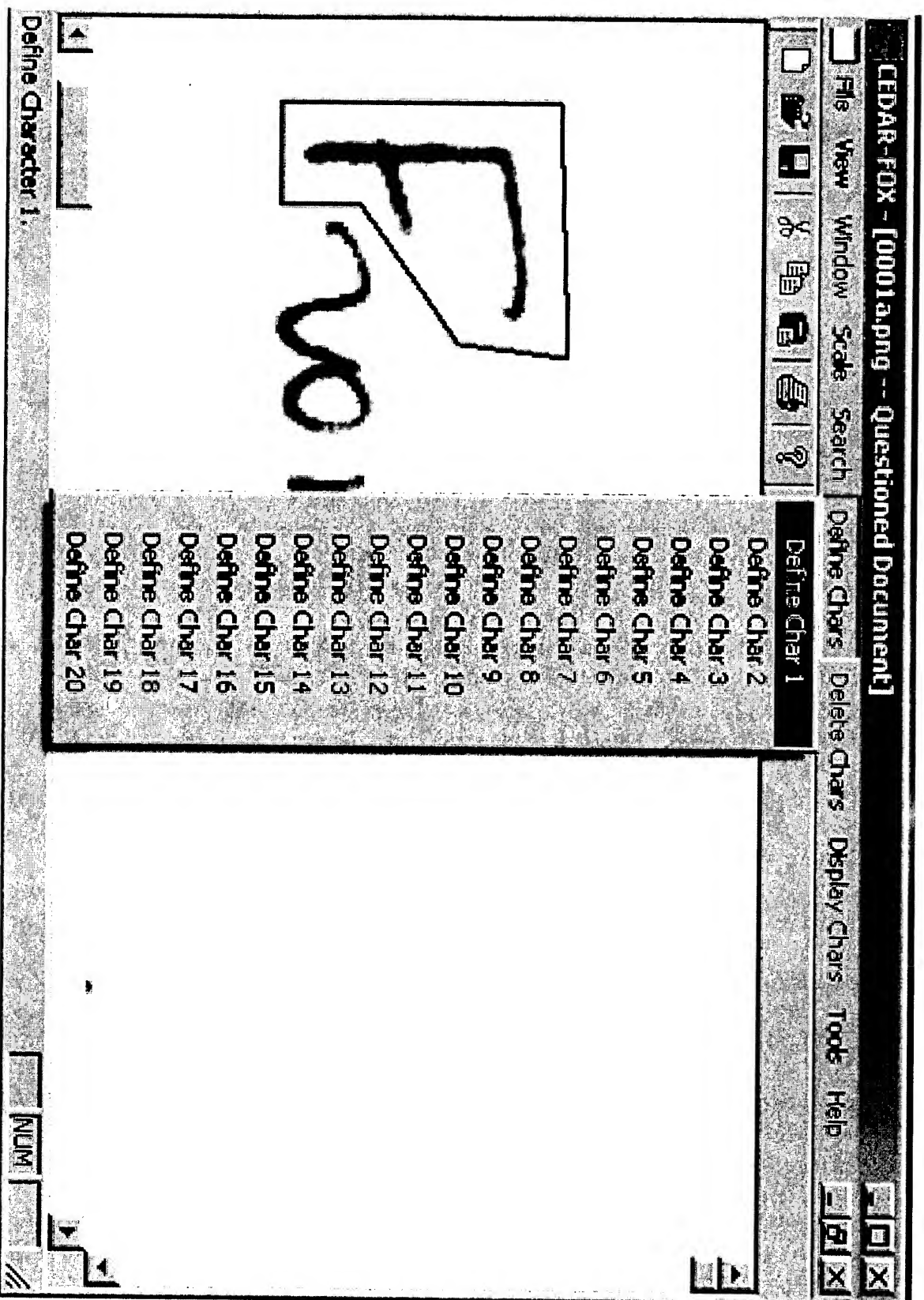


Fig. 43

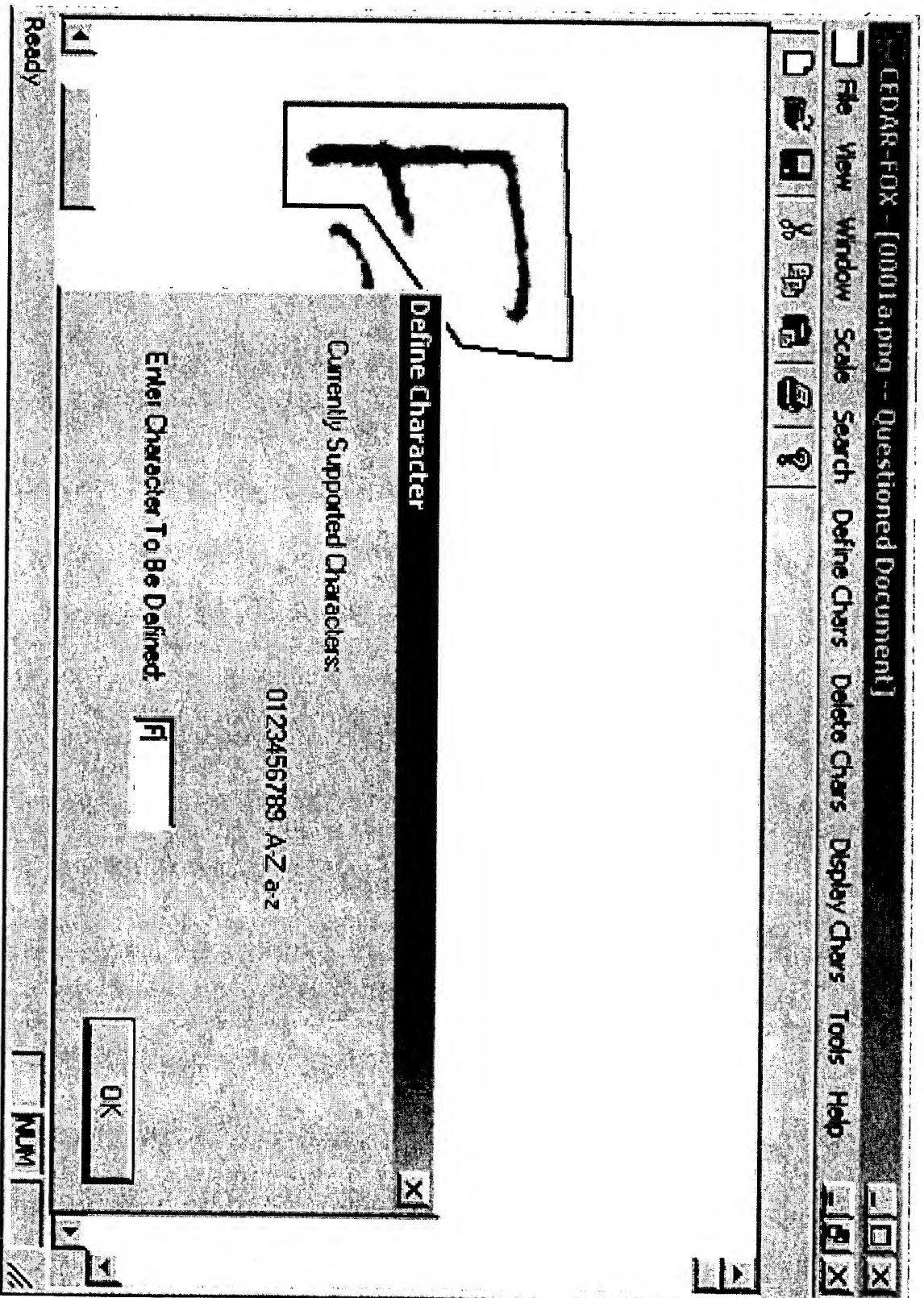


Fig. 44

CEAR-FOX - 0001a.png -- Known Document

File View Window Scale Search Define Char. Delete Char. Display Char. Tools Help

0001a.png -- Known Document

From
 Dr. E. Elder
 529 Loop Street, Apt 200
 Alhambra, New York 10470-2002

To
 Dr. Bob Grant
 630 Greenberg Building
 Davis, West Virginia 26038

We were ~~pleased~~ to you by Ken Calton at the University Medical Center. This is regarding my friend, Kate Zook.

I had started around six months ago while attending the "Raising" Text Contest. Organizing such an event, and as President of the Alumni Association, a co-event, Kate was overwhelmed but she enjoyed her what was requested of her with great zeal and pleasure. The extra hours affected her health; she showed she passed out. We rushed her to the medical questions, X-rays and blood tests later, we just exhaustion.

0002b.png -- Questioned Document

From
 Dr. E. Elder
 529 Loop Street, Apt 200
 Alhambra, New York 10470-2002

To
 Dr. Bob Grant
 630 Greenberg Building
 Davis, West Virginia 26038

We were ~~pleased~~ to you by Ken Calton at the University Medical Center. This is regarding my friend, Kate Zook.

I had started around six months ago while attending the "Raising" Text Contest. Organizing such an event, and as President of the Alumni Association, a co-event, Kate was overwhelmed but she enjoyed her job, and did what was required of her with great zeal and enthusiasm.

However, the extra hours affected her health; while passing through the hospital, and several other blood tests later, we told it was just exhaustion.

Kate's been in very bad health since. Could you kindly let us know the results and give us your opinion?

Thank you!

Ready

Fig. 45

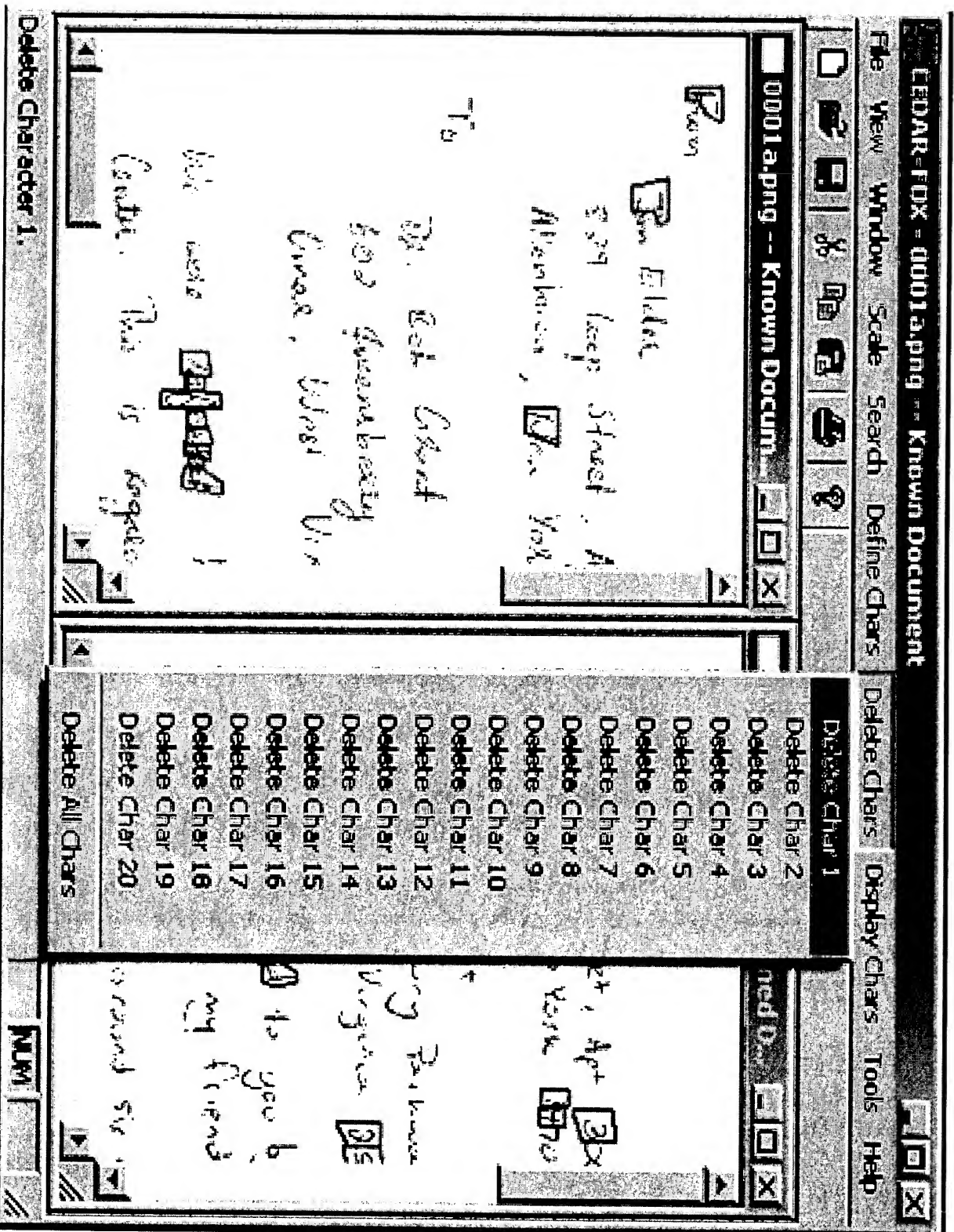


Fig. 46

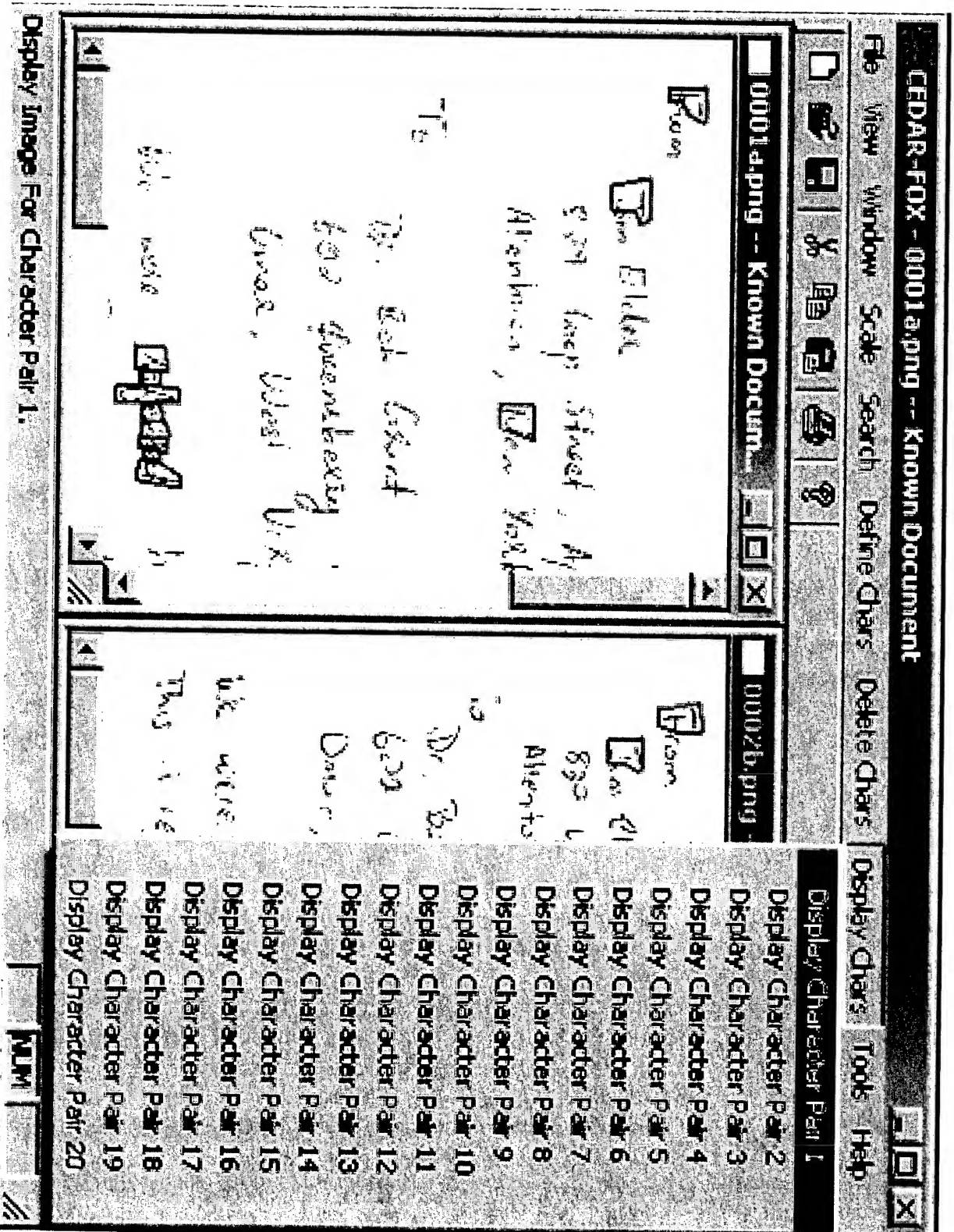


Fig. 47A

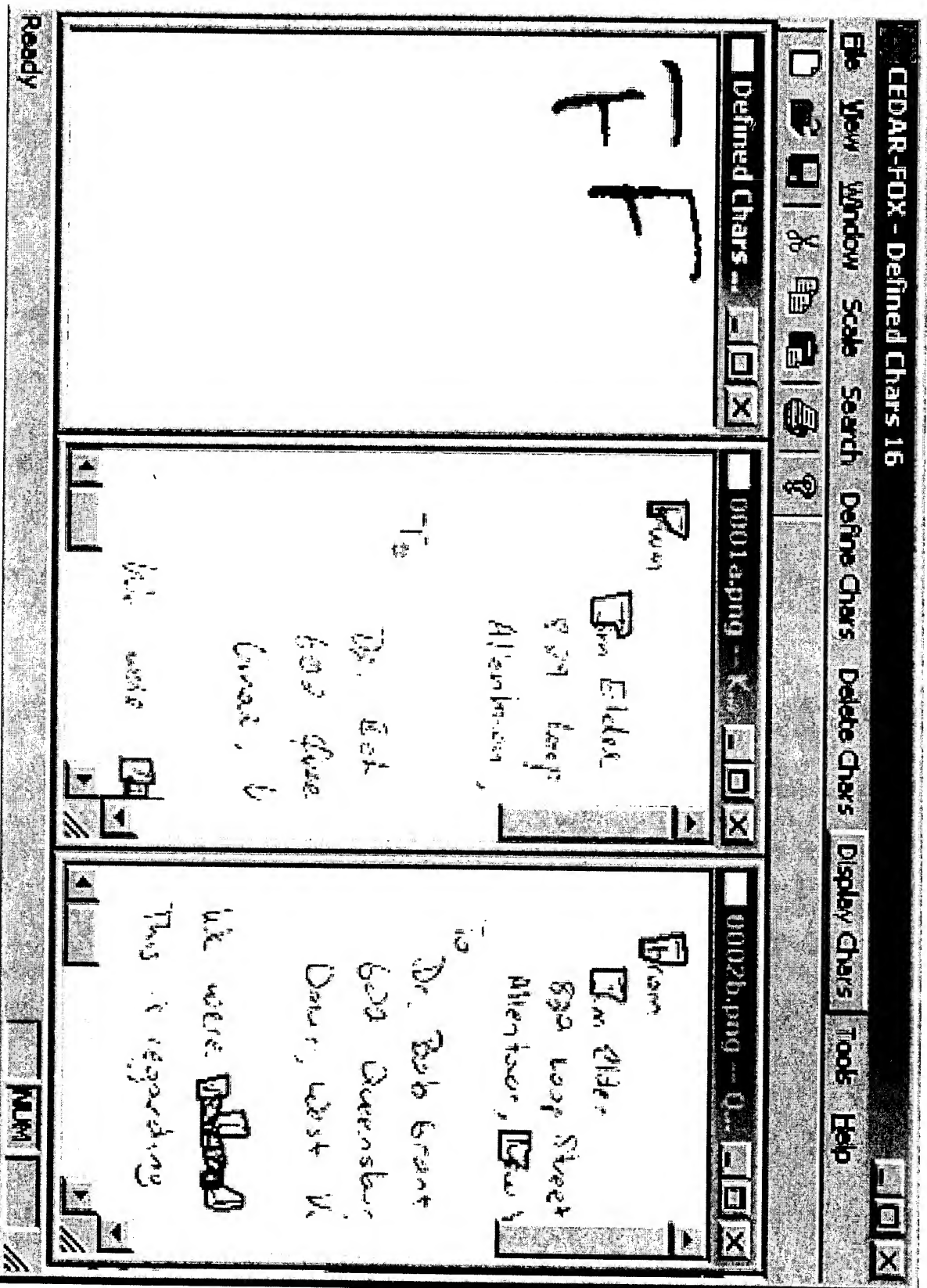


Fig. 47B

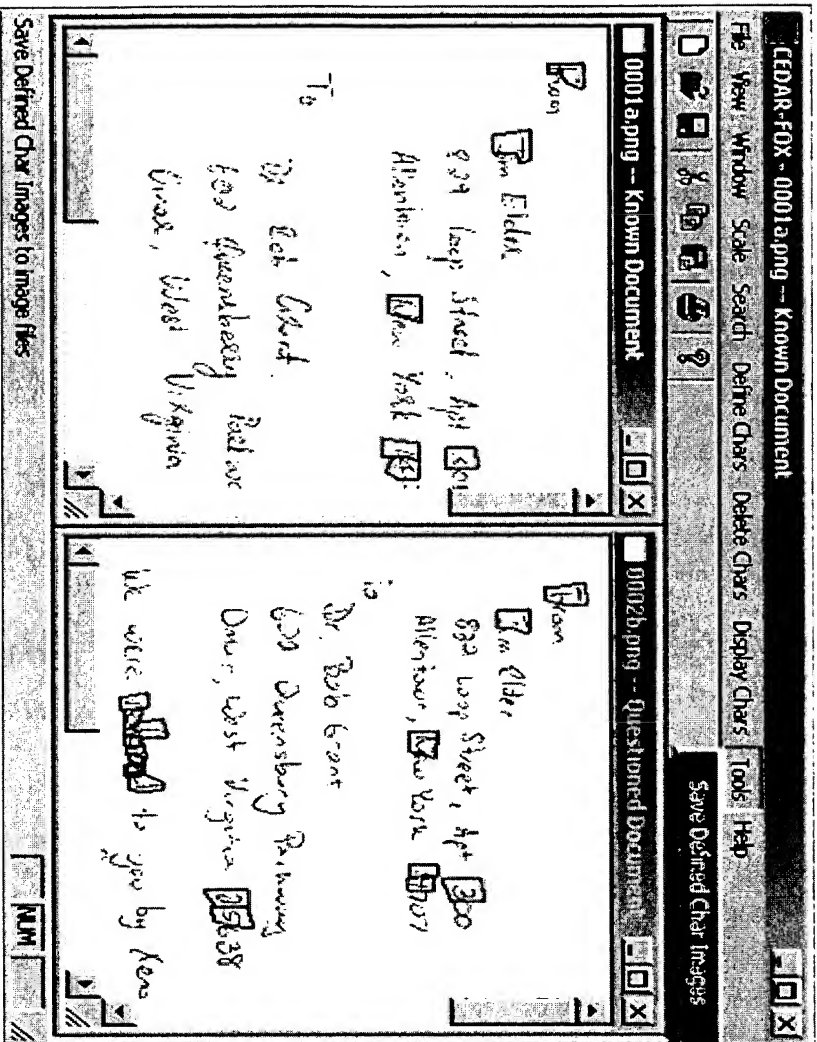


Fig. 48B

Fig. 48A

